

Draft for Borough Council Review March, 2006

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EXECUTIVE SUMMARY



Streets are an integral part of Narberth's open spaces.

Welcome to the Narberth Open Space Master Plan

This plan outlines opportunities and challenges for Narberth's open spaces, and strategies and projects that can address those challenges. The plan considers open space to be not only traditional parks, but also streets, which are so important for walking and biking and were the focus of Narberth's original 1996 open space plan, as well as yards, parking areas and other private open spaces, which are essential to the community's character and increasingly important to Narberth's tree canopy and storm water management.

Process

This plan has been prepared by Narberth's Open Space Committee, in response to the Montgomery County Green Fields/ Green Towns program, and under the guidance of County Planning Commission staff. When Narberth completes this plan, the Borough will be eligible to apply for nearly \$750,000 in funding to implement recommended projects. We also hope the plan will serve as a blueprint for numerous projects that can be implemented through many channels.

The Open Space Committee has been working on this plan since fall, 2004, and has held numerous committee meetings, open to the public. In addition, our consultants have interviewed nearly sixty park users; the Borough distributed a Community Open Space Survey, which received more than 200 responses; and the committee held a public meeting on July 19, 2005, that was attended by 85 people.

This draft of the plan signals the beginning of broader public discussion. There must be public hearings at the Borough's Planning Commission and Borough Council, and the Council must officially adopt this plan. We expect that community discussion will take place throughout this time, with the final approval process taking place in 2006.

Goals

The plan recommends the following key goals:

- "re-imagine" existing open spaces so they serve many purposes and many elements of the community,
- improve open space connections (such as streets and sidewalks) within the Borough and to adjacent communities, primarily to make it safer for pedestrians and bicylists to get around,
- "green-up" Narberth so that public spaces, streets, parking areas and yards support the urban tree canopy and contribute better to storm water management,
- review planning regulations to ensure that subdivisions and additions can occur with minimal impact to the tree canopy, storm water generation and the unique open space character of each block of town.

In addition, the plan recommends considering possibilities for expanding existing spaces, or acquiring new spaces by easement or purchase, when opportunities arise.

Priority Projects

The plan recommends the following priority projects:

- "Re-imagine" key streets starting with Windsor Avenue and N. Narberth and S. Narberth Avenue as "green streets" that balance traffic and parking with walking, biking, "bus stop" socializing, and landscape strategies that decrease storm water runoff.
- Improve connections between Narberth and Lower Merion Township along the East Wynnewood Road corridor and across North Wynnewood Road to the Thomas Wynne Trail.
- Create a new master plan for improving the Sabine Avenue Playground to consider access, facilities, programming and expansion into the adjacent parking lot.
- Undertake a tree inventory as a first step towards programs and projects for improving Narberth's urban tree canopy.
- Create a "bike hub" in the Station Square area, with amenities such as an information kiosk, to make Narberth a regional bicycling destination.
- Upgrade the Montgomery Avenue commercial corridor by making sidewalk improvements, calming traffic and burying utilities.

Implementation

Most of the projects recommended in the plan, and all of the projects recommended as priorities, could be eligible for funding through Montgomery County's Green Town/Green Fields program. But Narberth's allotment of funding will fall far short of the funding needed to implement these ideas. Where possible, the plan points to other resources — local, state, federal — that can be sought to support the projects identified in a well-crafted, strongly backed plan.

Finally, many of the projects listed here will require partnerships with Lower Merion Township, which makes sense because landscape and infrastructure of the two communities are seamlessly integrated, and the research conducted for this plan indicates a high degree of cross use of open space facilities by residents of each municipality. Through the drafting of the plan, the Borough's consultants have kept in close communication with township staff, and township staff attended our public meeting. Many of these projects will require the development of an effective working relationship between the municipalities, and can expect to be rewarded with preferential treatment from funding sources that encourage multi-municipal coordination.



The Narberth playground hosts numerous youth sports leagues and community events.

INTRODUCTION

This document updates and replaces the Borough of Narberth's open space master plan of 1996. This revised plan is prompted by Montgomery County, which is presently urging its municipalities to reevaluate their plans for open space preservation as part of its "Green Fields / Green Towns" initiative. Municipalities which complete a plan are eligible for County funding for many open space projects.

In encouraging municipalities to update their plans, Montgomery County primarily hopes to help those with unprotected open space to realize their assets, acquire space if necessary through easement or purchase, and to take measures to use their resources more wisely by developing smart-growth management strategies. Ultimately, for these municipalities, open space master planning is a basic tool for thoughtful growth.

Narberth, however, is different from most other municipalities in the County in that it is entirely built out. Here, open space master planning will not inform growth so much as address the quality of existing assets and remedies for problematic environmental conditions. Elsewhere in the County, "open space" may refer to farmlands, creek beds and wooded lots in addition to conventional parks and recre-

ational areas. In Narberth, "open space" is defined more broadly: sidewalks, streets and tree canopies, in addition to conventional open spaces like the Narberth Playground and playing fields.

Because many of these open spaces are shared by public and private interests, both the strategies used to create this master plan and the strategies recommended by the plan aim to build bridges between public and private interests. The research for this plan included significant civic engagement and public input. The Borough's Open Space Committee and planning team conducted interviews with park users, administered a Borough-wide survey, and performed onsite park-user studies. We held public meetings to get input from Borough residents of our analyses and results, and organized public workgroup sessions around strategy topics to foster dialogue between residents and experts.

This plan, a year in the making, lays a strong foundation on which to set the path for Narberth's future. Only through thoughtful strategies and the development of meaningful, respected relationships can Narberth's open spaces be best improved and managed to the benefit of the Borough, adjacent municipalities, and the natural systems whose extent defies political boundaries.

BACKGROUND AND PROCESS



Narberth's Open space public workshop attracted 85 residents, who discussed potential new projects.

PREVIOUS OPEN SPACE PLANNING EFFORTS

In 1996, the Narberth Borough Council and the Montgomery County Open Space Board adopted the "Parks, Open Space, and Recreation Plan for The Borough of Narberth," prepared by The Waetzman Planning Group. In addition to relaying the conditions, resources, and challenges of the Borough, they also identified four goals for the Borough and a series of specific recommendations to accomplish those objectives. To best utilize this opportunity to refine and supplement the 1996 Plan, these goals and recommendations need to be re-examined. To move ahead, it is important to know if the goals/strategies have been realized, and if they have not, why? These questions were answered in the 2004 Audit of the 1996 Parks, Open Space and Recreation Plan for The Borough of Narberth.

Goals of the Parks, Open Space and Recreation Plan

The goals outlined in the 1996 Plan were as follows:

Goal 1: Optimize the existing playgrounds and vistas with quiet areas, passive and active, rather than acquiring property.

Goal 2: Focus effort on the shared and collective "open space" of Narberth.

Goal 3: Develop the business area in any way that will encourage pedestrian traffic.

Goal 4: Raze obsolete buildings.

The strategies identified to accomplish these goals fell into one of three categories: Central Business District and Pedestrian Loop, Parks and Possible Acquisitions.

Audit of the 1996 Parks, Open Space and Recreation Plan

The accompanying chart, prepared by the Narberth Open Space Committee, is a summary of the audit's findings. Though most of the strategies identified had been completed by time of the 2004 audit, some strategies (those highlighted in red) remain in need of review, update, implementation, or all of the above. This Master Plan aims to address and resolve these remaining tasks.

Removed

AUDIT OF 1996 NARBERTH OPEN SPACE MASTER PLAN

It is recommended that [Station Circle] be increased in size to serve as a focal point for the business district and to bring a better pedestrian scale to the area...

An enlarged island would create a plaza area, with a walkway, seating and landscaping.

The parking area between the buildings on Haverford Avenue and the railroad should be evaluated to determine if access could be improved to alleviate parking congestion on Haverford Avenue.

Additional lighting, seating and landscaping should be explored in other areas of the business district to create more of a pedestrian area... [a complete] design study would explore different paying materials, seating landscaping [and] traffic patterns.

A pedestrian loop that would connect the two business areas, along Haverford Avenue and along Montgomery Avenue, with the library/community building area, should be considered... This might include special lighting, interpretive signs and seating area. A second phase could connect the Sabine Avenue Park and the Montgomery Avenue business area with the first phase... A third phase could connect the southern portion of the Borough and the Merion Elementary School.

Much of the playground equipment in the [two] parks is dated... The safety of the existing pieces of equipment, and the underlying ground material, should be evaluated. Consideration should be given to a complete redesign. Indoor activities might also be considered...

The Haverford Avenue Park includes a field area for baseball, including dugouts and bleachers, soccer and football. This area [should be evaluated to ensure] the most effective [use], and, if seating and pathways are adequate.

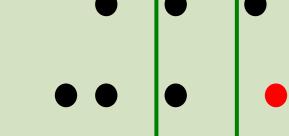
Parking, seating (esp. quiet, shaded seating areas), and the paths were subjects highlighted for further study at the two parks.

Additional landscaping at the Sabine Avenue facility should be addressed... to provide more of a buffer to Montgomery Avenue.

Storage/restrooms facilities at the Haverford Avenue Park... should be evaluated to determine [their] adequacy [relative to the Americans with Disabilities (ADA) Standards. Access to both parks should be evaluated with regard to ADA Standards [especially at the] Sabine Avenue Park.

As previously documented, there are no viable vacant pieces of land left within the Borough [for acquisition]... It is important that any property that becomes available... should be evaluated to determine if the property would provide... much-needed open space.

GOAL STRATEGY **SUTAT2** Soal 1: Optimize the existing playgrounds and way Central Business District and Pedestrian Loop any Veeds to be revisited and/or re-evaluated soal 2: Focus effort on the "shared and Soal 3: Develop the business area in hat will encourage pedestrian traffic. and collective" open space of Narberth. ristas with quiet areas, passive Soal 4: Raze obsolete buildings. han acquiring property. Possible Acquisition Complete Parks







CIVIC ENGAGEMENT

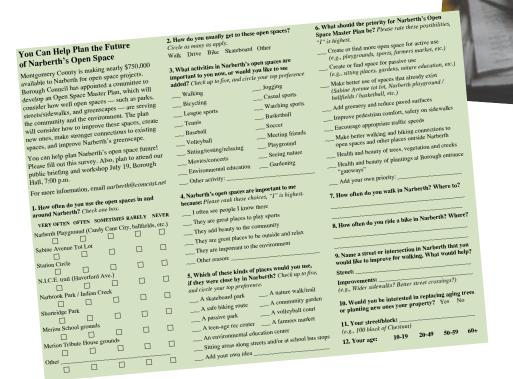
Our planning process has involved the several types of civic engagement.

- In June, 2005, the Open Space Committee conducted a Community Open Space Survey of Borough residents, asking questions about what open spaces they used, how frequently, what they did there, and what their priorities for open space would be. The survey was mailed out to all Borough households, and we received more than two hundred responses, a return rate of more the 12 percent. The survey findings were one set of information that informed, but did not direct, the recommendations in this plan.
- In the spring and summer, our planning consultants interviewed 60 users of the Narberth playground and athletic fields. People were asked about how often they came to the park, how often they used it, how they got there, and what they would improve.
- In the spring and fall, our planning consultants conducted user counts and parking counts in and around Narberth playground and athletic fields, to learn about how park spaces were used and about parking patterns around the park.
- In July, 2005, the Open Space Committee held an evening public meeting to present research findings and preliminary proposals for projects. About 85 Borough

- residents attended. The meeting discussed ideas and priorities for the projects categories described later in this plan "re-imagine" open space, "green-up" Narberth and "connections."
- Preliminary drafts of this plan have been presented and discussed at two Borough Council caucus sessions in October, 2005, and at a Planning Commission meeting in October, 2005. These meetings were announced and open to the public.
- The Open Space Committee has been meeting in open, public meetings on a monthly basis since October, 2004.

This draft of the plan signals the beginning of broader public discussion. This winter, there will be public hearings at the Borough's Planning Commission and Borough Council, and the Council must officially adopt this plan. We expect that community discussion will take place throughout this time, with the final approval process taking place in 2006.

Narberth's Community Open Space Survey, distributed in June, 2005.



COMMUNITY CHARACTERISTICS

Gateway to Narberth at the intersection of North Wynnewood and East Wynnewood Roads. The tunnel, and busy streets, make pedestrian circulation difficult.



BUILT CHARACTER AND LAND USE

Community Background

Narberth is a fully developed community located in southern Montgomery County. It is located at the headwaters of the East Branch of Indian Creek in the Darby Creek—Cobbs Creek watershed, a tributary of the Delaware River, and is about two miles from the boundary of West Philadelphia. Narberth is surrounded entirely by Lower Merion Township.

Narberth is about a half-square mile, with a population of 4,233. Its development pattern is largely residential on a gridded street pattern, with several small institutions (five churches and a school) located within the framework of its residential blocks. There are two commercial districts; a pedestrian-oriented downtown along Haverford Avenue, and an automobile-oriented mix of retail and office space along Montgomery Avenue (a major arterial that is a boundary with Lower Merion).

Incorporated in 1895, Narberth is the second station on the "Main Line" outside Philadelphia's city limits. Its development is consistent with other historic communities that were initiated as stops on commuter train lines leading to the city; its attributes are characterized by small commercial and civic establishments centered near the train station, and modest, vintage homes arranged on a series of integrated street grids. Because of this pattern and scale, walking and

bicycling are common, though narrow streets and sidewalks make them less enjoyable than residents would like.

Narberth is "built-out," with only a handful of infill lots left and an aging housing stock. The planning and development forces that Narberth is experiencing are more consistent with a first-ring or inner-ring suburb than with the rapidly growing ex-urbs that characterize so much of Montgomery County. Commercial areas like Montgomery Avenue might experience redevelopment, and as residential property values rise, there will be additional pressure for upgrading, expanding and perhaps even replacing homes.

In 2001, Narberth identified the development objectives through which it aims to direct and protect the Borough's neighborhoods. Paraphrased, they are:

- Maintain the Borough as a unique and attractive community that offers a higher density, more mixed-use, and greater walkability than surrounding suburban areas.
- Preserve, protect, and enhance the existing character of the Borough and to avoid—by policy or action—the deterioration of any neighborhood.
- Maintain a reasonably high level of public services and facilities through seeking an appropriate tax base.
- Encourage retail, office, and light commercial uses in appropriately zoned districts and to avoid heavy

Narberth is primarily residential. Most of the residential districts are single-family homes, with some blocks of semidetached and row homes, and small areas of apartment buildings, usually about three stories tall. The density of neighborhoods averages 12 people per acre across Narberth, but ranges from half that in the blocks west and north of Narbrook Park, to 50 people per acre in the block at the southeast corner of Iona and Woodbine Avenues.

Haverford Avenue Shopping

Narberth's main business district runs three blocks along Haverford Avenue. It is largely retail, with some upstairs residences and a few small office buildings; there is a focal public space, Station Circle, where the Narberth station on the commuter rail line is accessed. The shopping area resembles a traditional village main street, with solid blocks of buildings that front the sidewalk and shared parking in a municipal lot behind. Because the shopping area is integrated into the fabric of the town, it is easily accessible by walking or biking; parking is available principally on the street, but also in a recently improved and expanded lot on the south side of Haverford that can accommodate 52 vehicles.

- commercial and industrial uses that could negatively impact adjacent areas.
- Require adequate off-street parking facilities with conversions to business or multiple-residential uses.
- Allow most types of residential dwellings within appropriate zones and to provide a range of housing types
- Provide safe and convenient circulation for pedestrians, bicyclists, and vehicles; regulate vehicular speeds through the use of traffic control measures.
- Maintain the Borough's natural amenities, trees, park facilities, and streams, and encourage changes that least disrupt their continuance.
- Cooperate with neighboring municipalities on land-use, economic development, water and sewer, and highway location/use.
- Consider the County's suggested zoning policy where major land-use changes are contemplated.

General Land Use		
	Approximat	e
Land Use	Acres	% of Total Land
Residential	232.5	73%
Commercial/Office	26.8	8%
Industrial	0.0	0%
Institutional	8.3	3%
Utilities	10.5	3%
Parks/Recreation/OS	10.4	3%
Water	0.0	0%
Roads	31.7	10%
Total Acreage	320.2	

Source: Brown and Keene Bressi

Montgomery Avenue Retail/Office

Narberth's second business district comprises an automobile-oriented mix of retail and office space that runs along Montgomery Avenue (a major arterial that is a boundary with Lower Merion) from N. Narberth to Haverford avenues. This area follows a suburban model, with buildings that are set back from the street, and parking on-site. For the most part these buildings are of a larger scale than those in the Central Business District.

Institutional

There are five churches in Narberth, one of which has an affiliated school and two of which have pre-schools. All of them are nestled on large lots within the prevalent block pattern; three of them have off-street parking. There are no public schools, as Narberth is part of the Lower Merion School District, and students attend Merion or Belmont Hills elementary schools, Bala Cynwyd or Welsh Valley middle schools, and Lower Merion or Harriton High schools, all of which are outside the Borough. The former Narberth Elementary School is now leased for office space.

Utilities

Narberth is bisected by a major transportation corridor, a four-track rail line controlled by Amtrak and used by Amtrak, SEPTA and freight trains. For most of its length through Narberth the railroad is elevated on an embankment; from Narberth Avenue eastward, runs through a cut that serves as a boundary between Lower Merion and Narberth. There are two vehicular tunnels under the rail line, one pedestrian tunnel, and two bridges across it (though one bridge, at Rockland Avenue, is out of service). One pedestrian tunnel, at Dudley Avenue, has been closed.

Open Space / Recreational Areas

Due to the broad characterization of this category, status of ownership is not as important as the "open" nature of the landscape. Using this criteria, there are several vacant/recreational/open spaces within, adjacent, or neighboring the Borough including: Narberth Playground and playing fields, the Sabine Avenue Playground, Station Circle, the N.I.C.E. Trail, Narbrook Park, Shortridge Park, the Merion School grounds, and the Merion Tribute House grounds. Each of these open spaces is, at the very least, characterized by open lawn and street parking. In addition, some have sport fields, playground equipment, gazebos, picnic areas, benches, and parking lots.



Haverford Avenue shopping district.



Churches are integrated into the Borough's street and block pattern.



Small-scale apartment buildings can be found throughout the Borough.

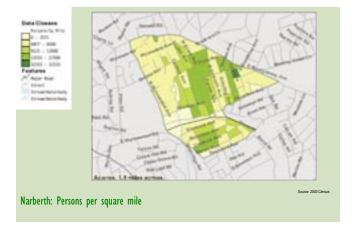
COMMUNITY DEMOGRAPHICS

Population Characteristics

Narberth is one of the smallest, most densely populated communities in Montgomery County with a 2000 population of 4,233 in just over a half square mile. This density, an average of 13 people per acre, is more than five times the average density in Montgomery County, and three times the average density of surrounding Lower Merion Township. Narberth is more dense than any area of Lower Merion except Ardmore, and more dense than any nearby municipality except Philadelphia.

Total Population: Stabilizing

The Borough's population declined for many years but stabilized in the 1980s at its current level, and is expected to remain steady for the foreseeable future. This decline is most likely attributable to a change in smaller household sizes more than anything else. In 1970, the average household size was 2.7 people, while in 2000, the Census reported that household size had decreased to 2.2. Additionally, the most recent projections published by the Delaware Valley Regional Planning Commission in 2005 show Narberth's population decline will continue to slow, and perhaps even stabilize, with a 2030 population projection of 4,190 for the Borough.



Density

Narberth is relatively dense, with 13.2 residents per acre, compared to most of Montgomery County and most of surrounding Lower Merion Township. However, its density is typical both of boroughs in Montgomery County (Ambler, Rockledge, Norristown) as well as inner-ring communities in general (Bala, Cynwyd, Upper Darby).

Within Narberth, densities vary widely, from the relatively suburban blocks along North Wynnewood Road and Wynnedale Avenue, to blocks along Forrest, Essex, Dudley and Windsor Avenues whose densities are almost urban. The highest densities — four times the average in the Borough — are found in the area of Woodbine and Iona Avenues.

Age Group Shifts

The 2000 Census shows the median age for Narberth residents as 37.7 years, slightly older than the median age ten years earlier. Narberth's median age is still younger when compared to that of Montgomery County (38.2); furthermore, Montgomery County's median age is shifting older more quickly.

However, looking at the specific age groups, especially when compared with those just ten years earlier, additional information can be gleaned to better inform the potential needs

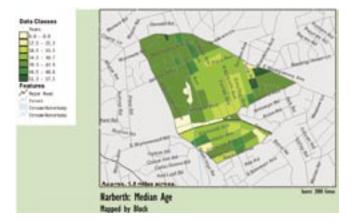
Population Den	sity (in people per square mi	ile)
Neighborhoods	Haverford	1,780
	West Ardmore	2,284
	East Ardmore	2,579
	Wynnewood	3,190
	Penn Wynne	3,199
	North Ardmore	3,248
	South Penn Valley	3,320
	Merion	4,098
	North Penn Valley	4,621
	Belmont Hills/College Park	5,055
	Narberth Borough	8,466
	Cynwyd	9,926
	Bala	11,027
N. A	Wast Ossahahashas Bassas	4 000
Municipalities	West Conshohocken Borough	
	Lower Merion Township	2,504
	Hatfield Borough	4,342
	Pottstown Borough	4,554
	Haverford Township	4,850
	Conshohocken Borough	7,589
	Ambler Borough	8,033
	Narberth Borough	8,466
	Rockledge Borough	8,590
	Norristown Borough	8,938
	Upper Darby Township	10,738
Counties	Montgomery County	1,553
Counties	Philadelphia	11,233
	Тиначения	11,200
Regions	Delaware Valley	1,439
States	Pennsylvania	274
Nations	United States	80
Sources: Lower Mer	ion Open Space Plan (2005); US Cens	sus; City-Data.com; Wikipedia.com

of Narberth's population with regard to open spaces in years to come:

- The number of very young children (less than 5 years old) in the Borough has decreased almost 20 percent since 1990, while the number of primary-school aged children (5 14 years old) has increased by almost the same amount.
- The number of people aged 65 and over declined by 25 percent since 1990, while the number of people aged 44 54 increased by 65 percent. Those people will soon be Narberth's retired community.

Household Turnover

Census data also suggest constant change in the Borough's population: in both 1990 and 2000, the Census noted that more than half the Borough's population had moved in the past ten years. And the data suggest more change to come: almost ninety percent of the housing stock is more than



Age Cor	nposit	ion			
Age Group	1990 Pc	pulation	2000 Po	pulation	Change
<5	286	6.7%	231	5.5%	-19%
5-15	464	10.9%	573	13.6%	23%
16-20	181	4.2%	198	4.7%	9%
21-24	204	4.8%	162	3.8%	-21%
25-44	1,659	38.8%	1,477	34.9%	-11%
44-54	429	10%	709	16.7%	65%
55-64	340	7.9%	346	8.2%	2%
> 65	715	16.7%	537	12.7%	25%
Total	4,278	100%	4,806	100%	

Sources: Narbeth Open Space Master Plan (1996); US Census

65 years old, suggesting that renovations, expansions and perhaps even rebuilding are likely to continue apace.

Household Size, Education and Income

Of the 1,904 households in Narberth, slightly more than half (54%) are family households with an average of 3.02 people per family. Of the remaining 867 non-family households, about a third (32%) of them are single people, and a third of those (28%) are by singles age 65 and older.

Narberth is a highly educated community. Nearly all of its adult residents (94%) have graduated from high school, and nearly two thirds (64%) have completed four years of college, significantly more than Montgomery County (39%) and the nation as a whole (22%). Narberth residents also have relatively high incomes. In the year 2000, the median family income was reported as \$79,545, compared to \$72,183 in Montgomery County and \$49,184 in the nation as a whole. However, five percent of all families in Narberth

Median Household Income Comparisons

	•	
Neighborhoods:	West Ardmore	\$47,813
	East Ardmore	\$50,337
	Bala	\$56,250
	Narberth Borough	\$60,408
	Penn Wynne	\$75,174
	North Penn Valley	\$76,514
	Belmont Hills/College Park	\$77,360
	North Ardmore	\$85,915
	Merion	\$94,567
	Haverford	\$100,093
	Wynnewood	\$100,334
	Cynwyd	\$105,903
	South Penn Valley	\$137,761
Municipalities:	Norristown Borough	\$35,714
·	Conshohocken Borough	\$43,599
	Ambler Borough	\$47,014
	Rockledge Borough	\$47,958
	West Conshohocken Borough	\$56,111
	Narberth Borough	\$60,408
	Lower Merion Township	\$86,373
Counties :	Philadelphia	\$30,746
	Montgomery County	\$60,829
States:	Pennsylvania	\$40,106
Nations:	United States	\$41,994
		, , , , ,
Sources: Lower Merion	Open Space Plan (2005); US Census	

still live below the poverty level, and that number is even higher for individuals.

Housing and Homeownership

In 2000, there were 1,981 housing units in Narberth, slightly fewer than ten years earlier. Housing patterns reflect Narberth's character as a dense community —nearly twothirds of the Borough's housing stock comprises singlefamily homes (65%); but more than half of total housing stock is semi-detached, rowhomes or multi-family homes (54%). In 2000, sixty percent of the homes in Narberth were owner-occupied, a slight increase from a decade earlier.

Employment Characteristics

According to the 1997 Economic Census, there are between 1,220 and 1,495 people employed in Narberth — compared to 2,417 residents employed. This underscores the complicated dynamic by which the commuter rail station is used by a large number of people on a daily basis, while pressures for parking mount in the denser residential neighborhoods.

The three largest employers by industry are the Administrative, Support, Waste Management, & Remediation Services industry (25%); the Health Care & Social Assistance industry (22%); and the Retail Trade industry (20%). The Delaware Valley Regional Planning Commission projects that Narberth's employment will remain relatively stable over the next twenty years, climbing just three percent above current employment rates. Though this is considerably less growth than projected for surrounding Montgomery County, it is due to Narberth's built-out character.

			2000
Neighborhoods:	West Ardmore		40%
1 1016/10011100000	Fast Ardmore		51%
	North Ardmore	55%	0.70
	Narberth Borough	/-	60%
	Haverford		74%
	Bala		76%
	Cynwyd		77%
	Merion	81%	
	North Penn Valley		82%
	Belmont Hills/College Park	89%	
	Penn Wynne		92%
	Wynnewood		95%
	South Penn Valley	96%	
Municipalities:	Norristown Borough		48%
	Ambler Borough	58%	
	Narberth Borough		60%
	Conshohocken Borough		61%
	Rockledge Borough		69%
	West Conshohocken Boroug	;h	71%
	Lower Merion Township		76%
Counties: Philade	elphia	59%	
	Montgomery County		74%
States:	Pennsylvania		73%
Nations:	United States		66%

Narberth Housing	Types		
Houses			
I unit detached	847	43%	
Row Houses and Twin	ns		
I unit attached	410	21%	
Multi-Family Units			
2-4 units	24	16%	
5-9 units	127	6%	
10 or more units	260	13%	
Mobile Home	13	1%	
TOTAL	1981	100%	
Source: US Census			



ed accomment activities to the Durby, Cobbs, and Titticam beatts. Detailed sing, abenuatives analysis, and reconstruidations are provided for the Colife The plan reconstructs appropriate measures for the Cobbs Creek basis and refu to provide an enample for stakeholders in the Darley and Tintours basins to

ENVIRONMENTAL AND ECOLOGICAL **CHARACTER**

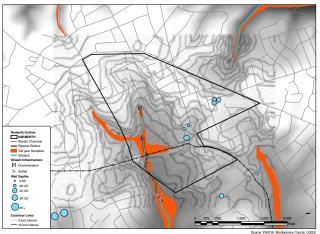
There are many environmental resources that support the aspects of open spaces that we consider most valuable: the healthy hydrology and soil systems that support majestic, mature trees, or sight and sound of a trickling creek as it winds its way through a park. This section reviews Narberth's key environmental and ecological features and issues.

Surface Water and Watersheds

Narberth's principal water feature is the East Branch of Indian Creek, which further divides in Narbrook Park into tributaries with headwaters nearby in Lower Merion Township (on the grounds of the Merriam Estate) and in Narberth (in a culvert near Montgomery Avenue). Narberth also hosted a series of wetlands, but they were drained and filled before 1930.

Indian Creek is part of the Cobbs Creek-Darby Creek watershed, which drains into the Delaware River. The creek is unusual in that, for most of its course to the Delaware, it has not been culverted (only short segments under the Narberth playing fields, Lankenau Hospital and the Overbrook neighborhood have been buried). This makes it possible to imagine a daylit riparian corridor stretching all the way from Narberth to the Delaware.

In Narberth, Indian Creek has been altered from its original course; it is contained by culverts and channels through most of its southward path through the Borough. All of the underground diversions are man-made. The primary culverted section runs beneath the Narberth playground and playing fields. The creek is enclosed in a six-foot diameter culvert, which further acts as a sub-surface dam by not



Narberth Water and Topography Topography, floodplains, streams and wells.

allowing rainwater that collects on the fields to infiltrate into the creek, This, in turn, creates soil saturation and moderate ponding at the surface.

The day-lit segments of the creek have both natural and channelized portions, each typically surrounded by mowed lawn and planted modestly with mostly non-native vegetation. However, this vegetation does not substitute for a riparian buffer—a densely vegetative cushion of native grasses, plants, and trees on either side of a stream that promotes a symbiotic relationship between the plants, animals, and hydrology of the site.

More than four-fifths of the land Narberth (268 out of 320 acres) drains to the East Indian Creek watershed. The low-lying areas adjacent to the creek are floodplains where water accumulates during storms. Flooding in Narberth has become increasingly common, causing damage to public and private property. Two storms in 2004 were so severe that the flood-affected areas of Montgomery County (including Narberth) were declared federal disaster areas, making FEMA emergency assistance available; the Borough alone endured an estimated \$200,000 in property damage in those two storms, while private property damage was estimated to have exceeded \$1 million.

Finally, most of the Borough has a very high water table ranging from less than one-foot deep in low-lying areas like Narbrook Park and the Narberth Playground and playing fields areas to more than three feet deep in steeply sloped areas like the western edge of the Narbrook Park neighborhood. Typically, the water table is one to three feet deep.

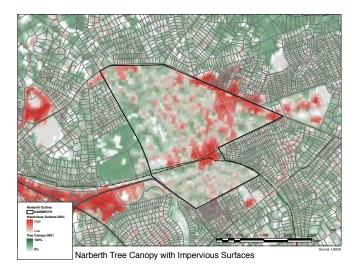
Impervious Surface

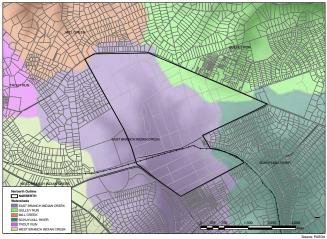
Nearly half of Narberth is covered with impervious surfaces - streets and sidewalks, driveways and parking, roofs — meaning that perhaps half of the Borough's storm water runoff must be rerouted into drainage systems. During severe storm events, water can not be processed by the storm water systems quickly enough, resulting in the floods that frequent Narberth today. The creek erodes and storm water pipes overflow, resulting in the floods the frequent Narberth today.

The high ratio of impervious surfaces also increases the amount of non-point source pollution that enters both Indian Creek and the storm water management system. Several groups monitor the water quality of the Creek, including Philadelphia Water Department and the Lower Merion Conservancy. As recently as July 2004, the Creek's water quality just south of the Borough was described as "severely impaired."

Topography and Soils

Narberth's landscape is hilly, but there are few areas of steep slope (more than 15 percent grade), partly because of the natural underlying geography, and partly because the Borough is highly developed, and much of the land has been graded to suit development. A ridgeline, separating the East Indian Creek watershed from various streams that feed the Schuylkill River, runs approximately along Montgomery Avenue, then south between Essex and Narberth, diagonally from Price to Iona and Meeting House, then south to Rockland and Woodside.





Narberth Watersheds

More important than steep slopes in Narberth, however, are the bowl-shaped depressions where water collects during storm events and the gentle grading that directs water-flow during times of rapid accumulation. These areas are considerable, and Narberth residents are experiencing flooding and other drainage issues with greater frequency.

With few exceptions, the soil classification for the entire Borough is MdB, which stands for "Made Land." This means that as Narberth development over time, its soils were excavated, covered, altered or mixed with non-local materials and soils to such a degree that the local soils are no longer discernible or relevant to processes that occur there primarily suburban living.

The area surrounding Indian Creek has a different classification of Ch, or Codorus silt loam. This soil type is usually found as a narrow strip along stream banks where the water table is at or near the surface. Adjacent to the Ch soil is a small strip of MdD, a more steeply sloped Made Land soil characteristic of urbanized streams and drainage ways.

In general, the water table is relatively high in Narberth — usually one to six feet from the surface.

Subsurface Geology

All of Narberth is located in the Piedmont Province, specifically the Piedmont Upland Section. Sandwiched between the level Coastal Plain and the diverse Ridge and Valley Province, most of the Piedmont is typified by a gently undulating landscape, often with rocky outcropping of the Wissahickon formation.

The underlying geology in the Borough is the Wissahickon formation in the northern area and Granite Gneiss and Granite in the southern area. The Wissahickon formation in this area consists of mica schist, which is soft and weathered. The granitic gneiss is harder and not as susceptible to weathering.

STATUS OF EXISTING MUNICIPAL PLANS

Statement of Community Development Objectives

Narberth has no comprehensive municipal plan, and instead relies on the Statement of Community Development Objectives in the Zoning Ordinance for planning policy.

- Maintain the Borough as a unique and attractive community that offers a higher density, more mixed-use, and greater walkability than surrounding suburban areas
- Preserve, protect, and enhance the existing character of the Borough and to avoid, by policy or action, the deterioration of any neighborhood
- Maintain a reasonably high level of public services and facilities through seeking an appropriate tax base
- Encourage retail, office, and light commercial uses in appropriately zoned districts and to avoid heavy commercial and industrial uses that could negatively impact adjacent areas
- Require adequate off-street parking facilities with conversions to business or multiple-residential uses
- Allow most types of residential dwellings within appropriate zones and to provide a range of housing types
- Provide safe and convenient circulation for pedestrians, bicyclists, and vehicles; regulate vehicular speeds through the use of traffic control measures
- Maintain the Borough's natural amenities, trees, park facilities, and streams, and encourage changes that least disrupt their continuance
- To cooperate with neighboring municipalities on land-use, economic development, water and sewer, and highway location/use
- To consider the County's suggested zoning policy where major land-use changes are contemplated.

The Open Space Master plan address several of these objectives, particularly those that relate to maintaining natural amenities, providing safe and convenient circulation for pedestrians and bicyclists, preserving the character of the Borough and cooperating with neighboring municipalities on land-use planning.

Montgomery Avenue "Stage IV" Plan

Narberth is currently preparing a study for the commercialoffice segment of Montgomery Avenue that borders Lower Merion Township. The study is being prepared concurrently with the preparation of this master plan, with the participation of Lower Merion Township staff.

The study is considering how to manage traffic better on Montgomery Avenue while making it more friendly to pedestrians and bicyclists—an issued raised in Narberth's previous open space plan—and improving access to parking lots that serve businesses along the street. Currently, several alternative scenarios for redesigning the street are being considered by the Borough. It is anticipated that county open space funds will be sought to implement part of this project.

Narberth Playing Fields Retention Basin

Narberth has obtained assistance from the Pennsylvania Environmental Council to assess the feasibility of a storm water retention basin underneath the Narberth Playing Fields. This basin would help capture excess storm water in one of the most flood-prone areas of the Borough, and, if constructed, would require the reconstruction of a large part of the playing fields. The application was pending at the time this draft of the plan was prepared.

Open Space, Natural Features and Cultural Resources: Shaping Our Future (A Comprehensive Plan for Montgomery County)

Montgomery County's open space master plan sets the template for the Green Fields / Green Towns program and the individual open space plans that municipalities in the County are preparing.

Among its major goals are: preserving interconnected areas of significant open space; protecting and managing wetlands, streams, slopes, woodlands and natural habitat; creating greenways along waterways; developing a County-wide network of trails (no trails are proposed in Narberth or

Lower Merion Township, though a greenway is suggested in Lower Merion along Mill Creek) and protecting scenic viewsheds. The plan makes note of the special considerations of built-out communities like Narberth, recommending, for example, that street rights-of-way be considered as important connections when there is not space for a dedicated trail.

Narberth's open space plan, though not concerned with typical issues such as preservation of undeveloped land or important historic and cultural properties, nor with the development of major new open space or recreation facilities, nevertheless follows the spirit of the County's plan in its stress on connectivity along streets, watercourses and trails; and its stress on environmental management (tree canopy, designing open space to minimize storm water impacts) as a priorities for open space projects.



Cobbs Creek Integrated Watershed Management Plan

Narberth's watersheds are the subject of several current plans, either directly or indirectly. These include the Cobbs Creek Integrated Watershed Management Plan, sponsored by the Philadelphia Water Department and the Darby-Cobbs Watershed Partnership.

The intent of the plan is to mitigate wet weather impacts caused by urban storm water runoff and combined sewer overflow; to identify ways to improve water quality, aesthetics and recreation opportunities in dry weather; and to restore living resources in the stream and along the corridor.

Numerous recommendations in the plan could involve the participation of Narberth, including mitigation of outflow during storm events, habitat restoration, a watershedwide public education campaign in the schools and along stream corridors, and connections to Cobbs Creek trail and greenway plans developed for Philadelphia. The plan considers most of the run of Indian Creek in Narberth as a "high priority" for restoration.

Lower Merion Township Bicycle and Pedestrian Plan

Lower Merion Township has completed a comprehensive bicycle and pedestrian plan, which will be implemented incrementally over the coming years. The plan suggests bike routes connecting Narberth and Lower Merion along Windsor and Haverford Avenues, Narberth Avenue, and Woodbine, Iona and Meeting House. This convergence of routes in the center of Narberth would connect the Borough to regional networks into West Philadelphia, and trails along both banks of the Schuylkill.

The plan also recommends pedestrian improvements along Montgomery Avenue, which is consistent with the recommendations of the "Stage IV" planning which is being completed now.



Recommended bicycle and pedestrian connections, Lower Merion Township.

Lower Merion Township Open Space Master Plan

As of this writing, Lower Merion Township's Open Space Master Plan is in the final stages of public review. Among its key recommendations are: create a trail along the west bank of the Schuylkill River and an "emerald necklace" of spaces along the river corridor; locate and develop new athletic fields; create new open spaces in underserved residential areas and in commercial corridors; and implement a township-wide pedestrian and bicycle plan.

Narberth's open space planning process overlapped with the completion of Lower Merion's process. There has been frequent contact between the teams working on both plans: staff planners and consultants conferred on a routine basis and reviewed drafts of recommendations; elected and staff leadership discussed open space issues at a coordination meeting held during the finalization of the plans; and representatives of each community attended the other's public meetings.

There are several areas for potential collaborative projects, all incorporated into the recommendations of this plan:

- Implement pedestrian and bicycle improvements on East Wynnewood Road, Montgomery Avenue and across the Rockland Avenue Bridge.
- Ensure public access, and upgrade public walkways, across the Merriam Estate as part of conditions for approval for further residential development there.
- Coordinate bicycle planning; create "sharrows" on Narberth streets that connect to Lower Merion bike routes; coordinate on signage and a bike map.
- Collaborate on environmental education and technical assistance for property-owners who want to plant shade trees, build rain gardens, and other "green infrastructure" improvements.



Narberth Playground and the nearby athletic fields, basketball courts and tennis courts a primary focal point of community activity and attract visitors from nearby communities.

INTRODUCTION

Most of the open spaces in and around Narberth are in municipal, institutional, utility or homeowners association control. Most of them can be considered "protected" in terms of their ownership, but in some cases the informal arrangements that allow for their use by the public could be vulnerable.

EXISTING MUNICIPAL OPEN SPACES

Narberth has three municipal open spaces—Narberth Playground and playing fields, the Sabine Avenue Playground, and Station Circle. Public property in Narberth is managed by the Borough Council's Property Committee; a Recreation Committee oversees the Borough's youth recreation programs.

Narberth Playground and Playing Fields

The Narberth Playground and playing fields comprise the largest public park in the Borough. The park was created in the 1920s and remains under public ownership and management. It is located between Windsor and Haverford Avenues, Borough Hall, the library and North Wynnewood Road.

The playground area of the park includes amenities for families and their children: play areas (recently reconstructed), benches, picnic tables, a small green and a gazebo. There are several entrances on Windsor Avenue. The sports

area of the park includes three tennis courts; two basketball courts (which are lit for night-time play); a large green that can be configured for baseball games (60-foot and 90-foot diamond); football games or soccer games; as well as a "field-house" with a snack bar, restrooms and water fountain. There is a small unprogrammed area next to the firehouse-Borough Hall. Altogether, the park comprises 5.5 acres.

Parking is available behind the tennis courts and basketball courts and on surrounding streets. The area is ringed and dotted with trees; several were planted after the last Open Space Master Plan noted the need for more trees; some older trees were lost in the 2003 tornado.

The field is one of the few large, contiguous, porous surfaces in Narberth, potentially allowing water to naturally recharge rather than being diverted to stormwater-drainage systems. However, Indian Creek runs under the park in a culvert, which releases water into a tunnel under the Amtrak-SEPTA embankment. Thus, the park is a focal point for flooding in the Borough; puddles and small ponds can be found there, particularly around the playground and above the buried stream, after heavy rains.

The park is highly programmed with youth sports leagues and community events. The Narberth Athletic Association sponsors baseball and soccer; the Narberth summer basketball league plays for several months; the St. Margaret



Catholic School football team uses the park as its home field; the Fourth of July Committee sponsors special events, including a summer concert series; and the Fourth of July fireworks attract people from throughout the region. On a busy weekend afternoon or summer evening, 300 to 500 people could be using the park.

In preparing for this revision of Narberth's Open Space Master Plan, we conducted three different types of analysis on Narberth Playground and playing fields: the Community Open Space Survey asked residents throughout the Borough about their use of the park; planners visited the Park on different days and different times to research first-hand how the park was being used, counting users, observing activities, and interviewing users about where they came from and how they were using the park.

Analysis 1: Community Open Space Survey

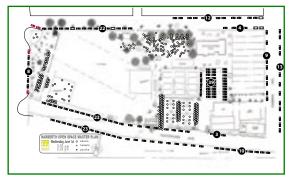
Collectively, Narberth is the most widely used park in the Borough, with nearly half of the survey respondents (48%) using it "often" or "very often." It is one of the most-walked-to destinations in town, sought after for its playground, ballparks, and sport fields. Similarly, it is also one of the most-biked-to places inside the Borough.

Analysis 2: Narberth Playground and Playing Fields Use Survey

During the months of May, June and September, consultants made nine site visits to Narberth Playground and playing fields to catalogue the number and age of people using the park, how they were using the park, and (on peak days) parking patterns in the area. General observations from these visits included:

- The number of people attracted by different events varies — about 300 for football, 200 for soccer, 180 for summer basketball, 50-80 for a typical baseball game, and 50-80 for a typical summer concert.
- 2. The number of people using the playground area ranges up to 50 at a time.
- Aside from watching sports games, very few people were observed in passive activities, such as reading or sunbathing.
- On each of three peak days when parking surveys were counted, there were a handful of spots available at the immediate perimeter of the park, as well as numerous illegally parked vehicles, often blocking pick-up and drop-off areas.











On none of the nine occasions were all three tennis courts being used at one time. Daily informal observation of the courts suggests that all three courts are used simultaneously only during late summer evenings, primarily in July and August.

Analysis 3: Narberth Playground and Playing Fields User Interviews

In our user interviews, we asked people in the park: where they came from, how often they visit, who they came with, and how they got there. Important findings include:

- A large number of park users come from outside Narberth. Since organized sports activities can be expected to attract users from afar, we focused interviewing on the playground areas. Even so, many users come from beyond Narberth, particularly Merion, Shortridge, Penn Wynne and Havertown.
- Nearly two-thirds of the people using the park reported driving there, or being dropped off. Most of them come with at least one other person.
- Most playground users reported coming because it was a good meeting place, or a place where they would be likely to see friends, specifically compared to other playgrounds, such as Sabine Avenue Playground or the South Ardmore playgrounds.
- Most were satisfied with the facilities and condition, but some said they would like to see more shade and better upkeep of the bathrooms.

Maps depicting usage of Narberth Playground and athletic fields. Observations were made on different days in the spring and summer of 2005.

Sabine Avenue Playground



The Sabine Avenue Playground is located at the intersection of Sabine and Montgomery Avenues, on the grounds of what used to be Narberth Elementary School, which is now owned by the Borough.

Whereas the Narberth Playground and playing fields can be used by many different users, the Sabine Avenue Playground is primarily intended for children and parents. Its major feature is play equipment, though there is a large, unprogrammed, turf-covered area as well. The play equipment was updated, and ADA-compliant ramp access was added, as a result of recommendations in Narberth's last open space master plan. Other features include a picnic table, water fountain and portable toilet; plantings were upgraded in fall 2005. Near the Playground, but separated from it, is an outdoor play-yard operated by the Montgomery Early Learning Center day-care facility in the former school building.

The playground remains constrained by poor grade-level access, poor sightlines to surrounding streets and poor parking, all of which make the space difficult for its intended users. Access and sightlines are constrained because the space is elevated five feet or more above the streets that it fronts; the primary entrances are stairs, a ramp that leads to Sabine Avenue, and a narrow, fenced walkway that leads to Elm Terrace. The Playground is adjacent to a large parking lot that serves the offices in the former school building, but the gate from the parking lot to the park is usually locked.

Not surprisingly, the playground is not used much at all certainly less frequently than other Borough open spaces, and less than Narbrook Park or Shortridge Park. Only one of six respondents to the Community Open Space Survey (17 percent) said they used the playground "often or "very often."

Though smaller than the Narberth Playground and playing fields, the Sabine Avenue Playground is still a significant environmental resource because of its high ratio of porous to impervious surfaces, which allow for groundwater recharge on site. It is situated at one of the highest points in the Borough, so it does not serve a major role in the collection of rainwater.

Station Circle



Station Circle is a relatively new open space for Narberth, recommended in the 1996 Plan and completed in 2004. It consists of a small, circular urban plaza located between Haverford Avenue and a parking area for the SEPTA station, as well as an expanded sidewalk between the parking, the station and adjacent shops. The area has become the central public space of the Haverford Avenue shopping district.

Station Circle is more of a downtown beautification project than recreational space, providing both a sense of arrival to Narberth from the train station and improving the visual quality of the downtown space through consistent use of paving, street furniture, street trees, and sidewalk plantings. The trees surrounding the circle add greenery and beauty to the area, but due to the high impervious cover, they do very little to mediate storm water runoff; most of the water that falls on Station Circle must drain off and be collected elsewhere.

Station Circle is visited frequently by Narberth's residents. According to the community open space survey, it is the second most used open space in the Borough, with almost half (45 percent) of all respondents saying they go there "often" or "very often." People use Station Circle by either passing through it, sitting on one of the benches there, or drinking from a fountain there. No events are scheduled specifically in the space.

EXISTING OPEN SPACES ON PRIVATE PROPERTY

N.I.C.E Trail, Haverford Avenue



The N.I.C.E. Trail winds along the north side of the Amtrak-SEPTA embankment, roughly between Dudley Avenue and North Wynnewood Road. The land through which the trail runs is owned by Amtrak, and an informal agreement allows the trail and its features. As such, the trail is not permanently protected. Trail upkeep and hillside plantings are both maintained by N.I.C.E., a local community group.

Though the embankment is only fifty feet wide for most of its duration, it is densely vegetated, and the trail is well maintained. The trail provides exceptional environmental benefits: its plantings stabilize the steep slope and slow storm water run off during heavy rains. Most of the plantings, however, are not native.

Very few people use the N.I.C.E. Trail; almost a third of the respondents to the Community Open Space Survey (30%) said they never use it, and only a few people (16%) reported using it "often" or "very often." The trail is accessible only from entrances along Haverford Avenue, and the trail is not always visible from street level (though some of its elements, such as benches along the way, are in view).

Narbrook Park / Indian Creek



Narbrook Park, a short walk from the Narberth playground and playing fields, is the second largest single open space (2.1 acres) in the Borough. This private open space is the focal point of Narbrook Park, a community of 35 homes, and is owned and maintained by the Narbrook Park Improvement

Association, a homeowners group for residents of that community. The park is part of a historic district of statewide significance.

There is no formal public access to or through the park, though in practice the residents welcome passive activities such as walking, jogging or bicycling along a meandering loop road. Nearly a quarter of respondents to the community open space survey said they visit the park often or very often. However, there is no parking for non-residents, and dogs are not allowed.

The open space is bisected by the East Branch of Indian Creek, the only unchannelized portion of that stream in Narberth. The creek bed is largely planted with ornamentals and has mild to severe erosion along its course through the Park. Neatly mowed turf directly abuts the creek bed's planting, and large mature trees (many of which are also non-natives) dot the level landscape with sparse to moderate tree canopy cover.

St. Margaret School Playground

N. Narberth Avenue



St. Margaret School maintains an asphalt playground, with several basketball courts, behind its school building. The playground can be reached by walking through the parking lot adjacent to N. Narberth Avenue. The playground abuts a cul-de-sac on Grayling Avenue, but there is no direct access. The playground and parking lot comprise one of the largest paved areas in the Borough. Casual visual observation of the area indicates erosion at edges, suggesting that rainwater sheets across the space and flows into adjacent properties.

New Horizons Senior Center

Price Avenue between Narberth and Forrest



The New Horizons Senior Center maintains a small garden and sitting area for people using the center. The garden can be accessed by walking across the lawn of the adjacent church (United Methodist Church of Narberth) or across a parking lot that serves the senior center and the church.

Church Properties in Narberth

There are five churches in Narberth, each of which contributes to the open space fabric of the community. Some are large buildings set in generous, landscaped open spaces, some maintain small gardens, some have off-street parking. Generally, church property can be considered a protected resource as long as the congregation itself is healthy.

☐ St. Margaret Roman Catholic Church 208 N. Narberth Avenue Garden, parking lot across the street.
☐ United Methodist Church of Narberth Price at N. Essex Ave. Off-street parking in conjunction with New Horizons Senior Center.
□ Narberth Presbyterian Church Windsor and Grayling Avenues Off street parking.
☐ Church of the Evangel S. Narberth Avenue and Elmwood Avenue Large lawn.
☐ Holy Trinity Lutheran Church Woodbine and N. Narberth Avenue No significant open space.

OPEN SPACES IN PUBLIC OWNERSHIP **NEAR NARBERTH**

Shortridge Park

East Wynnewood Road and Shortridge Drive



Shortridge Park lies just south of Narberth in the Shortridge neighborhood; it is owned and operated by Lower Merion Township, which classifies it as a "neighborhood" park. It is bounded by East Wynnewood Road to the north, Remington Road to the south, Shortridge Drive to the east, and the houses that front Parkview Drive on the west. Separating the houses' backyard from the park is a thick buffer of mature trees with large canopies. Indian Creek winds through the park and is dotted with smaller trees and vegetation, as it the rest of the landscape. The park is level and grassy with no set programming, though it apparently is a popular place for dog walking.

Shortridge Park is a recreational and environmental resource for Narberth and its residents, even though it is not in Narberth, and even though access across East Wynnewood Road is dangerous and difficult. More than a quarter of the respondents to the Community Open Space Survey use Shortridge Park "often" to "very often," and residents who live south of the Amtrak-SEPTA tracks use it more than spaces within the Borough.

Also, Indian Creek is daylit through the park, mitigating some of the harm caused by the channelization and underground diversion of the creek beneath the Narberth Playground and playing fields. Any time water is culverted, the velocity of the water passing through the system increases and fewer particulates and pollutants are removed; thus, the day-lit portion of the Creek in Shortridge Park helps to ameliorate this situation, but surely is the worse for it.

Merion Elementary School Grounds

Bowman Avenue

The Merion School grounds refers to the open space that surrounds Merion Elementary School. Bounded by Rockland Avenue to the north, S. Bowman Avenue to the south, the school's parking-lot entry road to the west, and the residences along Baird to the east, the school grounds are located in Lower Merion Township, though they abut the Borough's southeast boundary. The school grounds are owned and managed by the Lower Merion School District.

Because their primary purpose is providing elementary-aged children with a safe open space for supervised recreation, the school grounds are large and grassy, dotted with a couple ball fields and play-equipment, and bordered with tall trees around much of the perimeter. The fields host Narberth's T-Shirt Baseball Program, as well as Lower Merion Township's community youth soccer program, which also involves Borough youth. About one out of seven (14%) of the respondents to the Community Open Space Survey reported using the Merion School grounds "often" to "very often" for their own enjoyment and recreational uses, and undoubtedly countless Merion residents do as well. Use of the Merion School grounds was probably even greater prior to the closing of the Rockland Avenue Bridge which provided a safe crossing from the Rock-Avon neighborhood to the school grounds.

Like other large, open spaces, one of best environmental resources that the Merion School grounds provides is the higher ratio of pervious to impervious surfaces, compared to surrounding land uses, thus allowing a greater degree of water absorption during storm events. Even though the school is presently expanding, a great amount of open space will remain.

EXISTING OPEN SPACES ON PRIVATE PROPERTY NEAR NARBERTH

Merion Tribute House, Hazelburst Avenue

The Merion Tribute House is located in Merion Station, about a third a mile south of Narberth. Its six- to eight-acre site contains the Tribute House itself, two large parking lots, and expansive landscaped grounds. The House was built after World War I as a tribute to the men from Merion who had served their country, and was always intended to be a community center for social events. Today, it is primarily in the business of hosting special celebrations. An adjacent scout house is also used by both local Girl and Boy Scouts for meetings and activities.

The grounds of the Merion Tribute House are maintained to provide a superb backdrop for the numerous social events (such as weddings) that occur there every week. Majestic mature trees, smaller ornamentals, and decorative landscape plantings dot the entirety of the grounds which is otherwise turf. Because of the greater than average tree canopy cover and pervious surfaces, the Merion Tribute House grounds are an environmental asset for their potential storm water infiltration properties, however, more so for Merion Station than Narberth. Narberth residents use the Merion Tribute House grounds occasionally for their own enjoyment; about one in twelve of the Community Open Space Survey respondents (8 percent) reported going there "often" or "very often."

The Merion Tribute House Property is registered as a Historic Resource Industry, and managed by a volunteer board of directors. Unlike all the other spaces utilized by Narberth residents, this open space is permanently protected with maintenance provided by the Merion Community Association.

Thomas Wynne Pond and Trail



The Thomas Wynne apartment complex is located just across North Wynnewood Road from the Narberth playing fields. Its grounds include a pond that feeds one branch of Indian Creek. Though on private property, the pond is accessible to pedestrians who know of its presence. Elsewhere on the property, a paved walkway connects a parking area to the Wynnewood SEPTA station. Though "no trespassing" signs clearly warn the public away, the trail will be upgraded and opened to general public access as result of a development agreement for an adjacent property.

OTHER OPEN SPACE RESOURCES

Private and Public Tree Canopies



Tree canopy cover is often overlooked as an environmental resource, but it is important for several reasons. Trees are nature's thermoregulators: in summer they provide shade from the sun; in winter their leafless branches let the light and heat in. Trees cleanse the air by extracting ground-level carbon dioxide and converting it into oxygen. And, perhaps most importantly for Narberth, the tree canopy slows the rate at which rain falls to the ground, giving more time for rainwater to be handled — whether it flows into a stream, into the storm water system, or soaks into the earth — and increasing the effective capacity of all those systems.

Narberth's tree canopy is an asset that falls into public and private ownership; indeed, because the Borough's streets are so narrow, many of the trees that appear to shade streets and sidewalks are on private property.

Narberth's trees are typically mature, which means they are susceptible to dying either in place (by failing to provide a consistent and regular leaf canopy each spring) or by being uprooted in storm conditions. Some homeowners, noting that their trees are failing, are taking the trees down as a safety measure, increasing the rapidity with which the Borough's mature tree canopy is disappearing. In fall 2003, a tornado struck the Narbrook Park and Narberth playground area, felling numerous older trees, and making the issue that much more vivid to Borough residents.

The sooner the Borough addresses this issue, the sooner it can begin to restore its tree canopy, and the more likely it will be to avoid secondary problems such as increased concentrations of storm water runoff. Indeed, seventy percent of the respondents to the Community Open Space Survey said they would be interested in replacing aging trees or planting new ones on their property. This might be another area in which to creatively forge public-private partnerships, or to join resources with similar areas of Lower Merion Township, to the collective benefit of both residents and the Borough.

Yards, Setbacks and Buffers





Because Narberth is largely residential, its greatest amount of open spaces is probably in the yards that surround its houses and the setbacks and buffers around apartment buildings and commercial properties. These spaces are important in terms of the sense of openness they provide in a community (a block of rowhomes has a different feel than a block of Dutch Colonials), in terms of the beauty the provide to the streetscape, and in terms of storm water management and water quality.

Though yards, setbacks and buffers offer greater environmental benefits than impervious surfaces, how they are managed can make a big difference. For example, grassy lawns absorb far less rainwater (and generate more storm water flow) than various types of gardens.

Historic, Cultural, and Scenic Resources

Narbrook Park, a planned subdivision dating back to the early twentieth century is listed on the National Register of Historic Places as a place of statewide historic significance.

In 1996 a historic consultant surveyed the Borough to evaluate the feasibility of a state-certified historic district. Though many of Narberth's buildings were found to represent a style of American architecture distinct to the earlier part of the twentieth century and some were even identified as potential landmark buildings, certification was ultimately not pursued.

Whereas private homes were identified as historically significant, the Library-Community Building was identified as culturally significant because of the role it plays in many of the Borough community activities.

As for scenic resources, the Montgomery County Planning Commission Resource Protection Plan indicates Montgomery Avenue as a Scenic Route, connecting natural and historic areas. Narbrook Park and segments of North Wynnewood Road, though not designated, could also be considered scenic landscape resources.

Parking Areas



Parking areas are not conventionally thought of as open spaces, but they are an important resource. Typically they are hardscaped and proximate to busy locations, yet they are generally not in use every hour of the day, or every day of the week. For these reasons, they lend themselves to multiple uses, though presently, parking lots are only being used for parking in Narberth. While the paved surface area of parking lots makes it easy to imagine lots of different types of activities occurring there, the large contiguous areas of impervious surfaces burdens the Borough with increased run-off during storm events.

OPEN SPACE LINKAGES

Looking at an aerial photograph of Narberth, the town's tree canopy seamlessly blends with that of the neighborhoods surrounding it — as do its gridded streets and housing development patterns. Which is to say that Narberth's trees are part of a larger urban canopy, its streets connect to a larger system, and its housing patterns reflect a larger trend.

In addition to the tree canopy cover and street grid mentioned above, other existing resources that could provide potential open space linkages include Indian Creek, the railroad rightof-way, N.I.C.E. trail and the sidewalk system. When the Community Open Space Survey asked residents to identify what the most important priority of Narberth's Open Space Master Plan should be, the second most highly rated response was that Narberth should "make better walking and biking connections to open spaces and other places outside Narberth." Citizen support for linking to resources in Lower Merion Township is strong.

Indian Creek

Indian Creek is one of the most underdeveloped, and could be one of the most powerful, connections between Narberth and surrounding community. As noted previously, unlike many streams in the region, it runs above ground for most of its course between its headwaters in Narberth and the Delaware River, into which it feeds. The creek can be imagined as a functioning riparian corridor, and perhaps a corridor for walking and environmental exploration, that connects Narberth to its region. Planning frameworks for improving water quality, mitigating storm water events, restoring habitat and expanding environmental education have been set out in the Darby Creek-Cobbs Creek watershed management plan.

Bike Routes

Narberth has no dedicated bike lanes or trails. Perhaps this is why nearly half (47%) of the Community Open Space Survey respondents reported to have "never" ridden a bike in Narberth. Of those who said they do bike in Narberth, the places they ride to most often are the Haverford Avenue shopping district and open space and recreation areas in and around Narberth. Survey respondents explained that they don't ride their bikes in the Borough because, without dedicated lanes or trails, biking is unenjoyable at best and potentially even dangerous.

Neighboring Lower Merion Township is working to improve its bicycle network, and because of the greater distances covered biking, this network is relevant to the opportunities

available to Narberth residents. Soon Lower Merion hopes to have 46.25 miles of bike routes, representing a mix of biking prospects: dedicated bike lanes on the street; mixeduse, hardscaped trails; off-road trails, etc. Connecting to these resources from Narberth would mean better linkages to regional destinations, including the Schuylkill River and Manayunk.

Streets

Narberth's street grid is substantially connected to that of Lower Merion Township. More often then not, people are entering and leaving the Borough in their vehicles, rather than by foot or bike. But as people drive from here to there, 19% of the respondents to the Community Open Space Survey expressed a concern that there are not enough stop signs, stoplights, and signals in the Borough for both vehicular and pedestrian traffic. Another 8% said they were concerned about speeding vehicles, especially those that don't stop or slow down soon enough for pedestrian crossings or stop signs. However, when the question was worded a different way ("What should the priority Narberth's Open Space Master Plan be?"), "encouraging appropriate traffic speeds" ranked second to last.

Concerns regarding traffic have been recently elevated with the increasing number of commuters who are using Narberth as a short cut between Montgomery Avenue and Philadelphia. By addressing the initial concerns of speed, stop signs, stoplights, traffic-pedestrian signals, and crosswalks first through thoughtful design and implementation, Narberth's attractiveness as a shortcut will most likely be diminished.

Sidewalks



With few exceptions, Narberth has a fully developed sidewalk system, with are typically present on both sides of the street, the only exceptions being some culs-de-sac and the bridge crossing the railroad at Narberth Avenue. However, most sidewalks in Narberth are narrow, and along some streets, such as N. Wynnewood Road, the condition varies widely from property to property. In Narberth, as in most communities, the maintenance of the sidewalk is the responsibility of the abutting property owner.

If the frequency of how often people walk in Narberth is any indication of how much the sidewalks are used, then their use is considerable. More than half the respondents to the Community Open Space Survey (57 percent) said they walk in Narberth every day. The primary attractions people walk to are the amenities of the town center on Haverford Avenue, including the train station. When asked, "how do you usually get to [Narberth's] open spaces?" respondents indicated that walking is the most popular means for people in Narberth to get to neighborhood parks and recreational areas. For example, more than half of the respondents (57 percent) walk to open spaces compared with the next two highest ranking modes of transportation: driving (25 percent) and biking (16 percent).

Because the sidewalks are the only current means for walking in the Borough (with the exception of the N.I.C.E. Trail), they are a tremendous asset. Yet the Community Open Space Survey indicated that the pedestrian experience could still use improvement. Though the primary pedestrian concern stemmed from a lack of safe crossings at street intersections, 30 percent of the respondents said they are concerned with the quality of the sidewalks. Half of the respondents (51 percent) concerned with sidewalk issues specifically said they would like to see the sidewalks widened. A third (38 percent) said they were concerned with general sidewalk improvement (including repairs), while the rest (11 percent) said they would like to see sidewalks built where there are none now.

Railroad Crossings (Bridges and Tunnels)



There are currently three pedestrian connections and two vehicular connections between the north side and south side of Narberth, and all are substandard. None of the connections would meet ADA requirements; the North Wynnewood Road tunnel is primarily for vehicles, with a narrow pedestrian walkway; the SEPTA tunnel is pedestrian only, and accessible only by stairs.

The Rockland Avenue Bridge, which until recently connected Narberth and the Merion Station neighborhood, has been taken out of service. There are no easy possibilities for improvement to the capacity of any of these crossings, aside from a planned upgrade to the Narberth Avenue bridge.

Trails

Narberth's only traditional trail is the N.I.C.E. Trail, which runs along the north side of the Amtrak-SEPTA embankment; Narberth residents also use a macadam trail that leads across the Thomas Wynne property to the Wynnewood train station. Lower Merion Township has recently completed a feasibility study for a township-wide pedestrian and bicycle network that could enormously increase both recreational walking and biking opportunities for Narberth residents.

Intersections

Though intersections are not open spaces in and of themselves, they are important features of streets, which are an important open space resource in Narberth. By definition an intersection is a place where one path is cut through by another. In practice, an intersection is a complicated place of interaction, where pedestrian and vehicular "paths" often conflict, yet where neither should dominate.

Many Narberth residents feel that vehicles make crossing intersections dangerous. In the Community Open Space Survey, 23 percent of the respondents said that making more, better and safer pedestrian crossings is the primary concern for improving streets. Lower Merion Township is also concerned with safe pedestrian crossings and has proposed a plan that would yield 275 new intersection crossings and 25 new mid-block crossings in the township.

OPEN SPACE CHALLENGES AND NEEDS



Narberth's open space resources—as traditionally conceived and as redefined to include streets, parking areas, yards and building setbacks—are the flash point for some of the Borough's most important planning challenges:

- managing urban environmental resources, such as riparian areas and urban tree canopy, to promote ecological health
- addressing storm water runoff problems, not only through infrastructure such as retention basins, but also through environmental strategies for minimizing and slowing storm water runoff
- providing for safe walking and bicycle environments that promote healthy lifestyles, the neighborhood social life to which Narberth is accustomed, and alternatives to driving
- providing open space and recreational activities for a growing number of "tweens" and senior citizens
- providing adequate parking opportunities for residents of Narberth's densest neighborhoods
- maintain neighborhood character as more and more residents seek to expand their homes or tear down existing homes and start over with something bigger.

INVENTORY OF POTENTIALLY VULNERABLE RESOURCES

Urban Tree Canopy

As noted previously, Narberth's tree canopy is vulnerable because of its age. As trees age and weaken, they can be toppled more easily in storms. Homeowners are accelerating the decline of the tree canopy by removing, as a precautionary measure, trees that appear to be weakening. Home expansions, tear downs and infill through subdivision, while important to upgrading the Borough's housing stock, could also impact the amount of urban tree canopy.

Indian Creek

Indian Creek, which is daylit for most of its run to Cobbs Creek and on to the Delaware River, has the potential to be an exemplary riparian corridor. In Narberth, the creek is channelized for much of its length, and the one free-flowing section, in Narbrook Park, shows signs of distress. Though there is lush streambank vegetation, much of it is non-native, and there is a dearth of trees—providing less streambank stabilization a less robust habitat for aquatic and wetland life. Along this portion of the creek there is evidence of severe erosion, which threatens the local integrity of the creek and could diminish water quality downstream. The erosion could be due to the character of its streambank plantings, excessive flow rates during storm events, or both.

Narbrook Park

Similarly, Narbrook Park's environmental condition merits close attention. Visual inspection indicates:

- In the heart of the park many of the trees are nearing the end of their life expectancy, without new trees having been planted to replace them.
- The riparian corridor is not planted with the vegetation that would normally be found along a creek; there is a particular lack of trees, which would help stabilize the stream banks.
- Many of the trees and riparian plantings are ornamental and not native to the area.

It is possible that these conditions, if not addressed, could adversely impact Narberth's tree canopy and storm water management, as well as downstream water quality.

Narberth Playground and Playing Fields

This resource is continually vulnerable because of its susceptibility to flooding, which could result in damage that would prevent it from being used or require reconstruction. The Borough intends to study the feasibility of building an underground storm water retention tank, which would collect water from the surrounding low-lying areas and release it into Indian Creek more slowly. This project would temporarily disrupt athletic activities, but also provide an opportunity to upgrade the playing fields when they are replaced. In addition, the park, while in public ownership, is zoned for residential development.

N.I.C.E. Trail

Of all the private open spaces open to public use in Narberth, this trail is most in jeopardy. Because the agreement that allows public use is informal, permission could be revoked at any time by Amtrak (owner of the corridor) or SEPTA (a major user) for any reason. The trail's upkeep is undertaken by a volunteer group, whose resources are strained. And the trail does not seem to have built a constituency that would advocate for it should its public use be challenged, or if its maintenance became neglected.

Sabine Avenue Playground

The Sabine Avenue Playground is located on property owned by the Borough, but the property can be reclaimed by the Lower Merion School District for several more years if it wishes to use the property for a school. There is no indication that LMSD now wishes to use the school.

In addition, the land where the park and school are located are zoned for residential development.

Windsor and Haverford Avenues

These two main streets, which bracket the town's main park, experience heavy cut-through traffic in morning and afternoon rush hours. Traffic volumes and speeds are especially problematic given the narrowness of the street and, in mornings, the presence of school bus stops.

Neighborhood Texture

The character of Narberth's neighborhood blocks should be monitored in the coming years. A combination of older housing stock and increasing attractiveness of the Borough as place for families to live could result in an increasing number of house upgrades, additions or replacements. Though we do not anticipate that the borough will see a widespread change, there are a handful of situations that could affect the residential fabric in certain blocks. These are the kinds of changes that should be monitored:

☐ Subdivision

Some of the lots in Narberth are large enough to contain two or more separate lots under the zoning code. There are very few instances where a subdivision of a lot could occur without tearing down the existing home; in most cases, the oversized lot could be subdivided into two or more new lots only if the existing home is torn down. This is a possibility in about a dozen sites, many of which are in prominent locations along major roads. In the instance of some large lots along Wynnewood Avenue, there is a deed restriction that mandates a 150-foot setback for the homes facing the Avenue. Even with this setback, there is still enough room for a subdivision of the lot under current zoning codes.

☐ Additions and Tear Downs

The most likely condition is for houses to be expanded through tear downs or additions. This is possible because many existing homes are on larger lots that are not built to the fullest footprint allowed by zoning or impervious surface regulations. Although this occurs more often on large corner lots in R-1 zoning, it is also found in block interiors where lots have been combined in the past, as is the situation on Wayne Avenue. Visual inspection also indicates recent house additions that are not consistent with standard side setbacks, suggesting increased pressure for variances or special exceptions to expand houses on small and/or non-conforming lots. Changes such as these can have the following impacts:

Perceived open space: Yards can be perceived as part of the block character and open space network; building on them can create a sense of loss of open space.

Storm water runoff: Any new construction increases the amount of impervious surface in the Borough. This would ultimately affect the amount of storm water runoff.

Tree canopy: Any tear down, addition or new construction could reduce the amount of tree canopy. Even if replanting were to occur, it could take years for canopies to mature.

Julian Krinsky Tennis Camp

The Julian Krinsky Tennis Camp occupies a large property near the intersection of Haverford and Montgomery Avenues, and much of the property is devoted to indoor and outdoor tennis courts. Though the courts are not open to the public, they constitute a large amount of open space.

Currently, the camp's property is zoned partly as commercial, partly as residential, effectively preventing large-scale development without a zoning change. But because the camp is located along a prime commercial corridor, pressures to develop the site for more intensive use are likely to mount. The Borough should consider what an appropriate transition for this site would be, including what kind open space should be required if its use is ever to change.

ANALYSIS OF UNPROTECTED RESOURCES

Narberth's key open space resources, such as its municipal parks and significant private open spaces such as Narbrook Park, are protected through ownership. Most significant spaces just outside the Borough (school properties, parks) are also protected through ownership. On the west side of the Borough, the Merriam estate is the subject of a development proposal, but the lands closest to Narberth, and those most ecologically significant, would be reserved as open space in perpetuity, under this proposal. It will not be necessary for Narberth to expend resources to acquire unprotected resources.

Acres of Open Space Per 1000 Residents 0.1 Neighborhoods: East Ardmore Haverford 0.6 1.0 Bala Narberth Borough 1.5 West Ardmore 1.5 2.1 Merion North Ardmore Penn Wynne 3.0 Cynwyd South Penn Valley 6.4 Wynnewood 9.0 Belmont Hills/College Park 18.1 58.3 North Penn Valley Municipalities: Narberth Borough 1.5 Rockledge Borough 3.5 Upper Darby Township 6.1 Norristown Borough 10.3 10.9 Lower Merion Township Sources: 1996 Narberth Open Space Plan; 2005 Lower Merion Township Open Space Plan

COMPARISON TO OPEN SPACE STANDARDS

The National Recreation and Park Association has published standards for municipal open space, considering primarily active recreation space in public ownership, rather than passive or natural space, or resources provided by other entities, such as schools.

The 1983 standard is expressed as a ratio of parkland per 1,000 people. NRPA suggests that 6.25 to 10.5 acres of municipally owned open space per 1,000 people as a guide, with a ratio in the higher range more appropriate for built-up communities like Narberth. According to these standards, Narberth's open space needs would be between 27.5 acres and 46.2 acres—while Narberth's playground, playing fields and playground together cover slightly more than six acres.

By conventional standards, Narberth could be considered to have a significant deficit in the total amount of municipally owned, active-use open space in its ownership, as evidenced by the following table. However, there are several factors that mitigate against the strict application of these standards to Narberth.

NARBERTH MUN	ICIPAL OPEN SPACES			
Park Type	Amt needed range	(lo-hi)	Amt Existing	Defici
Mini-park	1.1	2.1	0.0	1.1
Neighborhood	4.2	8.5	0.8	3.4
Community Regional	21.2	33.9	5.5	15.7
NARBERTH WITH	I NARBROOK PARK A		PRIVATE SPACES	
Park Type	Amt needed range	e (lo-hi)	Amt Existing	Defici
Mini-park	1.1	2.1	0.6	0.5
Neighborhood	4.2	8.5	4.3	0.0
Community Regional	21.2	33.9	5.5	15.7
NARBERTH WITH	PRIVATE SPACES AND	ADJACENT	LOWER MERION SP	ACES
Park Type	Amt needed range	(lo-hi)	Amt Existing	Defici
Mini-park	1.1	2.1	0.5	0.6
Neighborhood	4.2	8.5	21.8	-17.0
Community Regional	21.2	33.9	5.5	15.

Sources: 1996 Narberth Open Space Plan; 2005 Lower Merion Township Open Space Plan; National Parks and Recreation Association

128.5

514.0

169.5

468.0

-105.3

-146.8

64.3

321.3

Neighborhood

Community

Regional

AN OPEN SPACE MASTER PLAN FOR NARBERTH

- Narberth is an extremely small municipality. Generally, it is more difficult for small municipalities to conform to simple quantitative standards such as these.
- Narberth was largely built out by the time these quantitative standards were adopted. Generally, it is more difficult for communities to conform to design and planning standards that were developed after they were built out.
- Were Narberth considered part of Lower Merion Township, and open space resources for both municipalities analyzed together, the total amount of municipally owned, active-use open space would fall within the recommended range.
- Since the two communities function with a high degree of interdependence (the sharing of playing fields among organized leagues, the heavy use of Narberth's playground by Lower Merion residents, and the heavy use of Shortridge park by Narberth residents), this would act to mitigate the open space shortfall within the Borough.
- When Narberth's privately owned open spaces such as Narbrook Park, the N.I.C.E. Trail and the St. Margaret's schoolyard — are added to the calculations, Narberth's amount of space devoted to so-called "miniparks" and "neighborhood" parks comes within range of national standards; it still falls short in the amount of space devoted to "community parks."

This analysis does suggest several strategies for Narberth to consider:

- Where possible, expand open spaces incrementally, or provide for greater public use of privately-owned public spaces, through easements or other agreements.
- Make certain existing open spaces are used to their fullest potential. The Sabine Avenue Playground and the N.I.C.E. Trail are currently under-utilized resources.
- Collaborate with Lower Merion Township on the funding and operation of open space resources that are important to Narberth residents, but for which space is not available in Narberth (for example, a canine area)

ADDITIONAL OPEN SPACE NEEDS

Underserved Neighborhoods

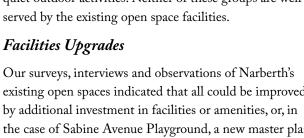
The northeast quadrant of Narberth, particularly those blocks north of Windsor Avenue and east of Grayling Avenue, are arguably the least well-served in terms of open space. These are among the most dense blocks of the community, have a higher than average concentration of youth and elderly, and are close only to the Sabine Avenue Playground, which is not well used.



Underserved Age Groups

In the coming decade, Narberth will be experiencing an increased population of teenagers, young adults, and of senior citizens. Each group has specific open space needs that could be given special consideration: teenagers tend to use places where active recreation (sports) and informal gathering can occur; senior citizens generally require spaces closer to where they live, designed as passive spaces or for quiet outdoor activities. Neither of these groups are well served by the existing open space facilities.

existing open spaces indicated that all could be improved the case of Sabine Avenue Playground, a new master plan. In addition, the Community Open Space Survey pointed out numerous key intersections that could be improved for



pedestrian crossings, and the desire to upgrade sidewalks throughout the Borough. Finally, though the network of sidewalks in the Borough is relatively complete, many are substandard in terms of their width and should be widened.

New Facilities

Respondents to Narberth's Community Open Space Survey indicated that several types of facilities would be welcome a farmers market, a dog park and bike lanes or trails.

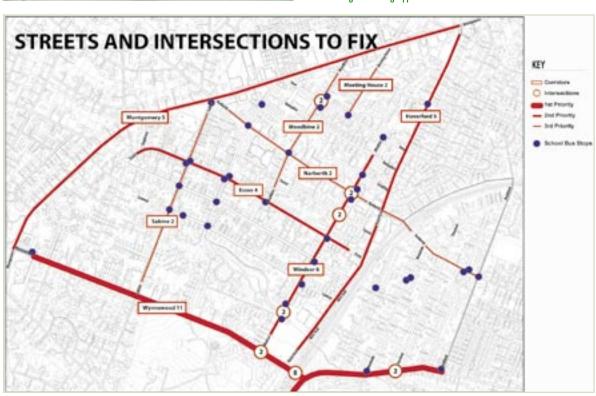
Evaluation of Growth Needs

Narberth's population and employment base are expected to remain steady over the coming decades, according to projections by DVRPC. Growth is not creating pressure to build on existing open spaces, nor is it causing an influx of additional residents or workers who would need access to open space. From a quantitative point of view, Narberth's open space needs will remain steady, but the types that would benefit its residents most may change.



Socializing at the school bus stop is a popular way to start the day in Narberrth.

The Community Open Space Survey indicated streets in need of improvement to provide for better walking and biking opportunities.



INTRODUCTION

Narberth is rich in many open space resources, though it faces many constraints — constraints that are typical of built-out towns, but unusual in the context of Montgomery County.

Ten years ago, Narberth took the innovative step of "re-imagining" open space to include not only traditional parks, but also the Borough's streets and sidewalks, which are the connective tissue for its active community life.

This plan continues that focus, and urges Narberth to "re-imagine" the concept of open space once again, to include not only parks, streets and sidewalks, but also parking areas, yards and the buffers around institutions and commercial properties. It urges the community to consider open space not only as a recreational resource or social network, but also as an environmental resource that should be managed. This is important not only for the health of the environment, but also as a practical way of addressing one of the Borough's most pressing problems, storm water runoff.

The following recommendations are framed around three broad goals:

- "re-imagining" the open space resources that already exist;
- improving open space "connections" within Narberth and to surrounding communities;
- developing "green-up" strategies for better environmental management of open space resources; and
- reviewing zoning, subdivision and landscape ordinances to ensure they provide adequate protection for community open space character.

It is important to recognize that these goals overlap — "re-imagining" an open space might involve thinking of it not only as a recreation space, but also as a connection or as an opportunity for "greening-up" m Narberth.~A "connection" m project, m suchas a street or stream corridor, might be especially important because it can combine improvements for bicycle or pedestrian access with better storm water management practices.

The plan also recommends that Narberth keep an open mind to acquiring new space for public use through purchase or easement; currently there are no spaces for which the cost of acquisition and development would be reasonable in terms of the public benefit that would be created.

Finally, the plan recommends the re-evaluation of zoning and subdivision codes to ensure that house additions, replacements and infill projects are consistent with Narberth's neighborhood and open space texture, as well as its objectives for storm water management and maintaining tree canopy.

GOALS

RE-IMAGINE SPACES

"Re-imagine" Narberth's existing open spaces — parks, streets, yards — so that each plays multiple roles in terms of public use, public image, and environmental management.

The most successful open spaces in Narberth are used very efficiently. Narberth playground and playing fields support everyday recreational activity, organized sports and special community events. Streets are used for driving and parking, walking and biking. Yards (and gardens and trees) contribute to the town's visual character and are critical to the microclimate and storm water management. Since open space is precious in Narberth, this principle —make the most of what we have — should underscore all of Narberth's open space projects.

IMPROVE CONNECTIONS

Improve pedestrian and bicycle circulation within Narberth, particularly between the north and south sides of the railroad corridor, and improve pedestrian and bicycle connections to open space resources and village centers in Lower Merion Township and beyond.

Walking and biking are critical to Narberth in many ways. They are healthy alternatives to driving, reduce traffic congestion and parking demand, and provide for the casual social encounters that make Narberth such a tight-knit community. Narberth should continue to improve its streets and sidewalks to accommodate pedestrians and bicyclists better, and should create better connections for walking and biking to surrounding communities.

GREEN-UP

Manage open space, both public and private, to sustain Narberth's environmental quality in particular, to improve the health of the tree canopy and riparian corridors, and to mitigate the impact of urban development on storm water flows.

Taken together, Narberth's open spaces have a profound impact on the urban environment, particularly microclimate, storm water management, and water quality in riparian corridors. Open space projects and programs should improve the health of these environmental systems, and the tradition of Narb-Earth day should be extended to ongoing community education, through initiatives such as homeowner outreach.

ACQUIRE NEW SPACES

Acquire new space for public use through purchase or easement, when the cost of acquisition and development would be reasonable in terms of the public benefit that would be created.

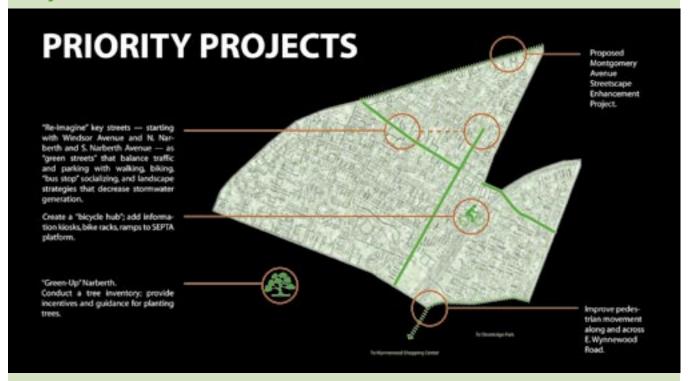
Though there do not now seem to be effective opportunities for property acquisition, the possibility should be left open.

CONSERVE NEIGHBORHOOD CHARACTER

Conserve Narberth's built character as a largely residential place with a variety of house and yard configurations that provide most blocks with greenery.

The area-wide trend toward oversize house additions, subdivisions and tear-downs may soon begin to impact Narberth's neighborhood fabric. Planning and subdivision regulations should be re-evaluated to ensure that homeowners can modify their properties appropriately with regard to concerns about impervious surface and the pattern of open spaces along the streetfront.

PROJECTS AND STRATEGIES



RE-IMAGINED SPACES

"Re-imagine" Narberth's existing open spaces—parks, streets, yards— so that each plays multiple roles in terms of public use, public image, and environmental management.

The most successful open spaces in Narberth are used very efficiently. For example, Narberth's playground and playing fields support everyday recreational activity, organized sports, summer programs and special community events. Streets are used for driving and parking, walking and biking. Yards (and gardens and trees) contribute to the town's visual character and are critical to the microclimate and storm water management.

Since open space is precious in Narberth, this principle—make the most of what we have—should underscore all of Narberth's open space projects. The following recommendations suggest how various kinds of spaces can be "re-imagined" to provide a full range of benefits to the community.

Existing Public Spaces

☐ Narberth Playground and Playing Fields

The playground, park and playing facilities between Windsor and Haverford Avenues are Narberth's most heavily used open space and, arguably, its greatest civic asset. However, as with all places used (and loved) as intensively as these are, periodic re-evaluation and refinement are in order. Our site observations, interviews and surveys suggest several issues that could serve as the starting point for a detailed design study:

- Parts of the park appear worn out and in need of reconstruction. In particular, compacted ground around the gazebo and fieldhouse areas might be exacerbating storm water drainage problems.
- There may be user groups whose needs aren't being met by the current activities and facilities. For example, there may not be enough space dedicated to passive use, especially for senior citizens. Are there appropriate facilities for "tweens" and teens, besides organized sports? Could the park be more of a destination or "oasis" for joggers or bicyclists who are running and riding throughout the borough?
- Are there enough user amenities, and are they located appropriately? For example, rest rooms may be too

- Are there sufficient drop-off and pick-up areas—appropriately located near playground and park entrances, safely designed, and clearly marked?
- Are the tennis courts used intensively enough to require three courts? (In our repeated observation, all three courts were rarely used at the same time.)
- Is there enough shade?
- Could this place play a role in a more aggressive environmental education program, with demonstration gardens and parking treatments?

The Sabine Avenue Playground serves one of the densest neighborhoods in Narberth. Yet in our repeated observation, it was not used much, and of the users we observed and learned about, few were using the play equipment there. At the same time, there is potential for expanding this space, since the adjacent parking lot is under-used.

We recommend an aggressive master plan for this space and the surrounding parking lot, considering major questions of:

- · appropriate programming/activities,
- · design of recreation facilities and plantings, and
- improved access from surrounding streets.

☐ Station Circle

This space, created as an outcome of the last Open Space Master Plan, has given downtown Narberth a civic focus, but has not attracted regular use. The plan recommends consideration of the following modifications:

- Add civic and functional elements, such as public art, or tables and chairs (and perhaps even umbrellas in the summer), that might attract more people to this space and make it more useful.
- Remove elements, such as bollards, that create unnecessary clutter.
- Make Station Circle a focal point for special elements, discussed elsewhere, that would help make Narberth a bicycle hub — community information kiosks, bike route maps, bike racks.

Existing Privately Owned Open Spaces

□ N.I.C.E. Trail

The N.I.C.E. Trail is a unique community asset that is underused. With a few simple improvements to its accessibility, visibility and connectivity, it might become a resource that is used more actively by more of the community. Specific recommendations include:

- Create "trailhead markers" that make entrances to the trail visible from Haverford Avenue, cross streets and the Haverford Avenue playing fields.
- Create at least one street-level "trailhead space" along Haverford Avenue that has a bike rack and seating for people who cannot climb the slope up to the trail.
- Create marked crosswalks on Haverford Avenue at trail entrances.
- Widen and re-grade the trail where possible.
- Review slope conditions and provide stabilization if necessary.
- Allow dog walking, with leash and clean-up rules.

The N.I.C.E. Trail would also benefit from better connections to a broader walking network. Improved access to the Thomas Wynne Trail, which leads to Wynnewood, as well as better connections under the SEPTA embankment and improvements along East Wynnewood Road, would make the N.I.C.E. Trail part of a larger recreational walking system. The trail could be connected better to downtown Narberth, perhaps extended to the SEPTA platform or connected with a sidewalk on the south side of Haverford Avenue.

☐ Passive Open Space at North Wynnewood and East Wynnewood Road

The parcel at the northeast corner of the intersection of North Wynnewood and East Wynnewood Road is undeveloped and is likely to remain that way because of access considerations. A small part of this parcel is accessible to the public, by voluntary arrangement, and is maintained by N.I.C.E.

The Borough should consider seeking a public access easement to this property so that it could be accessible to the general public as a passive open space, such as a garden, or additional public access to Indian Creek. This area would also be utilized better as pedestrian improvements along Wynnewood Road are made.

Merriam Estate / Thomas Wynne Apartments

The owners of the Merriam Estate, which borders Narberth along N. Wynnewood Road, are seeking approval from Lower Merion Township to redevelop it for residential use.

The current site plan (which has received preliminary approval) reserves several acres of land fronting Wynnewood Road near Sabine Avenue as permanently protected open space, but does not provide for public access. While it is vital to preserve this area as open space, since it includes the headwaters of the east branch of Indian Creek, public access to this space is not an urgent need for Narberth residents.

The site plan also provides for two public access corridors across the site, one connecting to Penn Road and the other to the Wynnewood SEPTA station; recommendations are discussed in the "Connections" section.

New Opportunities for Public or Shared Open Space

☐ Hampden Avenue Right of Way

This undeveloped right-of-way, space, recently secured for the Borough, will be upgraded with a through vehicular connection and access to parking on private property. This space could become a prototype for balancing Narberth's open space and parking needs:

- The design should incorporate a pedestrian connection to the rear of the site and a small seating area adjacent to the street;
- The materials should demonstrate best-practices towards permeable road surfaces that maximize percolation of storm water into the site.
- Landscaping should incorporate plants that slow the fall of rainwater to the surface and maximize the absorption of rainwater into the soil.

☐ Passive Open Space at North Wynnewood and East Wynnewood Road

The parcel at the intersection of North Wynnewood and East Wynnewood Road is undeveloped and is likely to remain that way because of access difficulties. A small part of this parcel is accessible to the public and is maintained by N.I.C.E. The Borough should consider seeking a public access easement to this property so that is could be accessible to the general public as a passive open space, such as a garden, or additional public access to Indian Creek. This area would be utilized better as pedestrian improvements along Wynnewood Road are made.

☐ Haverford Avenue—Narberth Playing Fields Corridor

Currently, a large amount of space behind the Narberth Community Library is given over to parking, and will remain in parking even after the library expands. It may be possible to reduce the amount of parking in this area — and to increase the amount of parkland — by adding parking spaces along Haverford Avenue and by entering into a shared-use arrangement for the Citizens Bank parking lot. The design might be re-evaluated to include a new circulation pattern, angled parking and dedicated space for drop-offs.

Parking policies along Haverford Avenue between Essex and North Wynnewood vary from block to block; in some areas, it is permitted on both sides of the street; in others, on only one side of the street; in still others, on neither side. Modifying the street so that parking is possible on both sides (except where curb cuts or police parking are located) should allow for enough additional spots to compensate for the loss of parking space on Borough property.

☐ Montgomery Avenue Corridor

The "stage four" study of Montgomery Avenue is considering improvements to the pedestrian realm by widening sidewalks. At the time of this writing, there are several alternative configurations being considered. Subsequent studies should also consider the possibilities of shared parking among businesses, and between businesses and residents, with the objective of freeing up useful areas of open space in commercial areas (small corner plazas, perhaps) and relieving parking congestion on surrounding streets (creating possibilities for small areas of planting at corners).

New Open Space Activities and Uses

☐ Farmer's Market

The Community Open Space Survey results indicate that Narberth residents strongly support the creation of a farmer's market downtown. This market, which might occur on a periodic basis (such as every Saturday morning), would allow farmers in the region to truck their produce directly to town, where it could be purchased by consumers in Narberth and surrounding neighborhoods.

There are several potential locations for a market around downtown, particularly in existing parking areas, but the spatial requirements of a market and logistics of access for farmers and customers must be carefully considered. We recommend that the Borough contact a market planner, such as Project for Public Spaces/Public Markets Collaborative or the Community Food Trust, for guidance on next steps, with an aim toward launching a pilot market sometime in 2006.

☐ Canine Space

The Community Open Space Survey and public meeting also indicated that Narberth residents would like to create a dedicated space for walking their dogs or letting them run free; currently, dogs are not allowed on Borough property.

Locating a dog park is challenging, given the conflicting needs for a space that is accessible to residents yet separated from other open space users, particularly children. A dog park also requires more oversight and maintenance than the Borough may be prepared to offer.

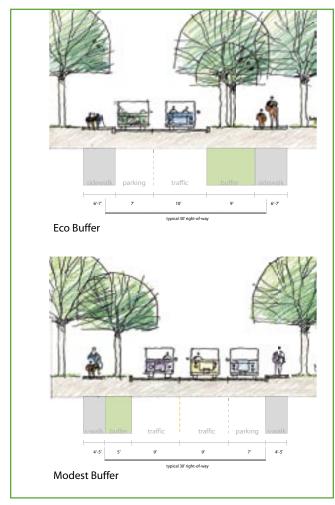
The notion of a dog park should be explored further, in the following ways:

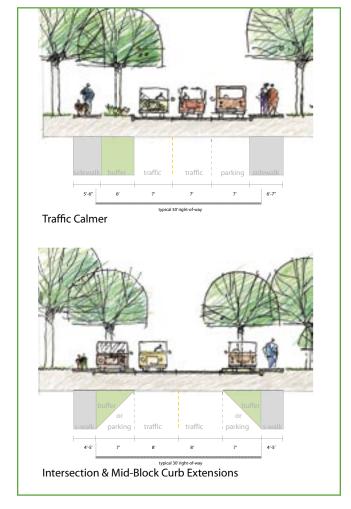
- Investigate regional precedents for a dog park; visit park managers and users to discuss design and operational issues, including the question of how civic organizations can be involved in the maintenance and monitoring of canine spaces.
- Consider working jointly with Lower Merion Township to jointly identify a location and build and operate a space.
- Consider the possibilities of retrofitting sections of an existing open space, as well as identifying a new open space, for a canine space.



KEY 1st Priority Completed Down town Street Proje

> The "Green Streets" strategy can help slow traffic, encourage walking and biking, create neighborhood gathering spaces, beautify neighborhood street and improve storm water management. Key streets are colored dark green, second priority streets are colored light green. Incremental improvements could be built on other streets, as well.





CONNECTIONS

Goal: Improve pedestrian and bicycle circulation within Narberth, particularly between the north and south sides of the railroad corridor, and improve pedestrian and bicycle connections to open space resources and village centers in Lower Merion Township and beyond.

Walking and biking are critical to Narberth in many ways. They are healthy alternatives to driving, reduce traffic congestion and parking demand, and provide for the casual social encounters that make Narberth such a tight-knit community. Narberth should continue to improve its streets and sidewalks to accommodate pedestrians and bicyclists better, and should create better connections for walking and biking to surrounding communities.

There are several categories of connections projects:

- · Connections within Narberth
- Connections between Northside and Southside
- Connections to places in Lower Merion Township
- Bicycling in and around Narberth

Connections Within Narberth

Within Narberth, connections occur primarily along a gridded street pattern, which provides efficient movement from one neighborhood to another.

The primary exception is movement between the north side and the south side of the Amtrak-SEPTA railroad corridor, which occurs only at three crossings and tunnels, all of which are deficient in some way.

The public right of way in Narberth generally consists of streets (with traffic lanes and parking lanes), adjacent sidewalks and up to five feet of the adjacent landscape. Within this cross-section, it is possible to imagine that the space of the right-of-way might be re-organized to create safer places for pedestrians and bicyclists, make room for community gathering places around bus stops, and establish street tree and landscape areas that help beautify the borough, slow down traffic, and mitigate storm water flow.

☐ The Pedestrian Loop / Green Streets

One of the most powerful ideas proposed in Narberth's 1996 Open Space Master Plan was the "pedestrian loop," a strategy for redesigning key connecting streets so that they are more amenable for pedestrians. The 1996 plan

envisioned improved streets downtown with connections to the south side, Narberth playground, Sabine Avenue and the Montgomery Avenue shopping district. Subsequently, improvements to Haverford, Narberth, Forrest and Essex Avenues were made, and a study for improvements along Montgomery Avenue is underway.

This plan recommends further development of the pedestrian loop, by re-imagining key residential streets as a network of "green streets" that are designed specifically to encourage walking and biking, with traffic calming, neighborhood gathering spaces, and street-side greening projects integrated along the way. Vegetation would be increased through design strategies including curb extensions or rain gardens at corners or along street corridors, landscape improvements at intersections, new trees planted on private property, and/or vegetated buffers along street corridors.

Key design issues will be:

- Create wider sidewalks and bike lanes where possible, by narrowing travel lanes or by expanding further into the Borough's right-of-way. This must be determined on a block-by-block basis based on topography, street widths and on-street parking considerations.
- Incorporate elements such as lighting and seating, in a manner that is suitable to a residential neighborhood; key locations are bus stops.

Priority should be placed on the following streets, in the following order:

- Windsor Avenue (because of our survey results, and prevalence of school bus stops),
- North and South Narberth Avenue (because of its connections to schools)
- Price or Woodbine Avenues (because they connect to the Montgomery Avenue shopping area).
- N. Essex Avenue (because of the prevalence of school and SEPTA bus stops),
- Haverford Avenue (because of our survey results, and because it connects downtown to the playing fields)
- ☐ Traffic Calming and Pedestrian Friendly Intersections

The respondents to the community open space survey demonstrated strong support for traffic calming at corners and mid-block crossings throughout the Borough, not just streets in the "pedestrian loop." Street corners, SEPTA and school bus stop locations, and the middle of long blocks are key sites to investigate. The citizen survey identified

numerous blocks and corners that might be upgraded; after a prototype is built along one of the recommended "pedestrian loop"-"green streets," subsequent improvements might be installed at other intersections the request of nearby neighbors.

☐ North Wynnewood Road Walkway and Bikeway

North Wynnewood Road is particularly dangerous for pedestrians because it is busier than local streets and because its sidewalks are narrow and discontinuous. This street was included in the original "pedestrian loop" concept; in recent years, the Borough has explored the possibility of upgrading the sidewalk on the Narberth side of the street.

Because North Wynnewood Road intersects with so few through streets, it could become a key corridor for walking and biking. There should be consideration of an on-street or off-road bicycle path in this corridor as well.

Connecting the Northside and Southside

Though there are few effective pedestrian connections between the north side and south side of Narberth, there are also no easy possibilities for improvement, aside from a planned upgrade to the Narberth Avenue bridge.

☐ Narberth Avenue Bridge

Upgrading the Narberth Avenue bridge is the best opportunity for improving pedestrian access between the Northside and Southside. This upgrade should make the crossing accessible for wheelchairs and strollers. Funding has been set aside in the regional Transportation Improvement Program.

□ North Wynnewood Road Underpass

Construction of a new underpass next to North Wynnewood Road may be the next best possibility for an improved connection, especially given the pedestrian improvements that are planned for that area in conjunction with the development of the Merriam Estate, the other recommendations of this plan, and the recommendation of Lower Merion Township's bicycle and pedestrian plans.

We recommend a preliminary engineering study to determine the construction and regulatory requirements of tunneling a pedestrian and bicycle passage through the embankment parallel to the current Wynnewood Road tunnel.

☐ Narberth Station Pedestrian Underpass Improvements

Investigate steps to improve storm water drainage and eliminate odors; consider adding ramps for improved access.

Connections to Lower Merion Township

Almost all of Narberth's boundaries with Lower Merion Township are marked by streets, and almost all of those streets are arterials that are dangerous for pedestrians to cross and intimidating for bicyclists to ride along. There are no marked pedestrian crossings anywhere along North Wynnewood Road and East Wynnewood Road, where they mark the municipal boundary. Some of these streets are mapped for improvement in Lower Merion Township's bicycle and pedestrian plan. Following are priority projects for improving connections between Narberth and Lower Merion.

☐ Connection to Shortridge Park

Shortridge Park, through which Indian Creek runs after it leaves Narberth, is heavily used by Southside residents. But there are no marked pedestrian crossings in this area of East Wynnewood Road—an area where there is also a school bus stop.

Our preliminary study indicates that a crossing would be possible in the vicinity of Woodside Avenue and Shortridge Park. The crossing could be combined with a pedestrianactivated warning signal, such as that which exists along Lancaster Avenue in Ardmore. Crossing safety would be enhanced as well by additional traffic calming measures on East Wynnewood Road.

☐ Connection to Wynnewood Shopping Center

Wynnewood Shopping Center is a popular destination for many Narberth residents and is within walking and biking distance for many. There is no continuous pedestrian walkway (including sidewalks and marked crossings) from Narberth to this shopping center.

Our preliminary study indicates that pedestrian movement could be enhanced by a series of improvements, including a marked crossing at Yerkes Avenue, with a pedestrianactivated warning signal, a sidewalk along the track-side of Wynnewood Avenue, improved crossing at North Wynnewood Avenue, and an enhanced connection underneath the Amtrak-SEPTA right of way.

☐ Public Easements Across the Merriam Estate

Under a development proposal being considered by Lower Merion Township, a pedestrian connection, open to the general public, would be built between the Wynnewood SEPTA station and N. Wynnewood Road, incorporating an existing walking trail that runs part of the way. A second pedestrian connection, open to the general public, would be

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built across the middle of the estate, alongside an interior drive and linking N. Wynnewood Road with Penn Road.

Adequate pedestrian crossings should be built where these walkways intersect with N. Wynnewood Road. The crossing for the first path, which would connect near Haverford Road, should be designed to integrate with the entrance to the N.I.C.E. Trail.

☐ Rockland Avenue Bridge

There is a growing movement to re-establish a pedestrian connection where Rockland Avenue crosses the Amtrak-SEPTA tracks. It is likely the existing structure (now closed to vehicular and pedestrian crossings) would have to be demolished and that a new pedestrian crossing would have to be put in place. Off-the-cuff estimates are that this work could cost as much as \$2 million; research into this project should continue, but open space funding is not a priority.

Though the primary impetus for improving the Rockland Avenue connection is to give Narberth residents greater access to one another and local resources, Lower Merion Township would also stand to benefit from a reestablished connection. Consequently, the reestablishment of such a

connection might be a collaborative effort between the two municipalities.

Bicycling in and Around Narberth

☐ Create a Bicycle Hub

Several of the bike routes being planned by Lower Merion Township would pass through Narberth, including along Haverford Avenue. Narberth's shopping district could emerge as a destination or way-station for bicyclists taking regional rides. The Borough and local businesses should establish the Haverford Avenue shopping district as a regional "bicycle hub" through the following steps:

- Provide information services (such a kiosk with local and regional maps) and bike parking (racks and lockers).
- Work with local merchants to develop services for bicyclists (rental, repair, healthy food, fast food).
- Work with SEPTA to build effective bike-rail links, including bike ramps alongside the stairways that lead to train platforms.

There are no pedestrian crossings on East Wynnewood Road between Williams Avenue and Bowman Avenue. Yet people frequently cross to reach Narberth Playground, downtown Narberth, Shortridge Park and Wynnewood Shopping Center. Improving pedestrian crossings on this road — which is largely within Lower Merion Township — is a major priority.





☐ Bicycle Parking

Place additional racks (near commercial districts, train station, parks, library, schools, civic buildings, places of employment, apartment buildings, and churches) and covered/high-security lockers (SEPTA station and downtown).

☐ Create Inter-Jurisdictional Bicycle Signage

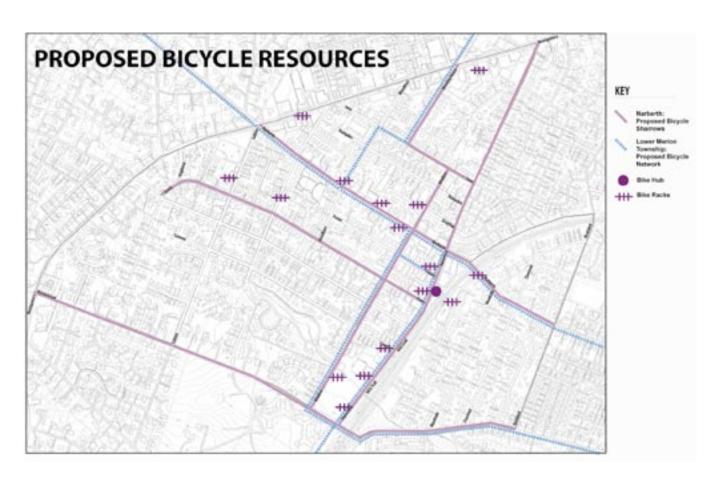
Coordinate with Lower Merion Township on the design and placement of bicycle signage for routes that lead in and out of Narberth. This signage will help residents find their way to destinations outside Narberth, and help riders in the region find their way to Narberth.

Each plate should indicate distance and mark destinations such as schools (Bala Cynwyd Middle School, Lower Merion High School, and St. Joseph's University), recreational areas (Schuylkill River Trails, Rolling Hill Park, Shortridge Park, Cobbs Creek Park, Merion Botanical Park, and Fairmount Park, etc.), employment and economic centers (Wynnewood Shopping Center, Ardmore, Bala Cynwyd and Lankenau Hospital), and nearby neighborhoods, towns, and town centers (Belmont Hills, Manayunk, Mill Creek Valley, Ardmore, Haverford, Bryn Mawr, Penn Wynne, West Philadelphia and Center City).

The Lower Merion Bicycle Plan only designates Haverford Avenue, Windsor Avenue, a portion of North Narberth Avenue, two blocks of Woodbine Avenue, one block of Iona Avenue, and Meeting House Lane as routes; other streets that should include signage include S. Narberth, E and N Wynnewood, Sabine, Essex, and Woodside, in addition to all of N. Narberth, Iona, and Woodbine.

Create an Inter-Jurisdictional Bike Map

Lower Merion Township has proposed to develop a map of its bike routes, showing connections to regional destinations. Narberth should take part in the development and distribution of this map — both paper and digital versions — to supplement its identity as bicycle-friendly community.



AN OPEN SPACE MASTER PLAN FOR NARBERTH

Install Bicycle Sharrows

"Sharrows" is shorthand for "shared-right-of-way" — a way of designating streets for bicycle use when there is not enough room for a bike lane. The designation entails painting the street with a symbol and adding signage that indicates to motor vehicles that bikes are likely to be traveling in a movement lane as well. First priorities for "sharrows" include:

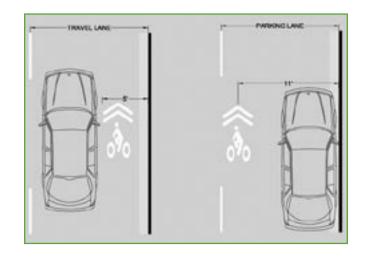
- East Wynnewood Road (convert the four- to five-footwide "safety" shoulder lane of the portion that runs through the Borough to bike lanes, painted with the bicycle symbol
- North Wynnewood Road (prohibit street parking and add a sharrow from the east side of the tunnel to Montgomery Ave.)

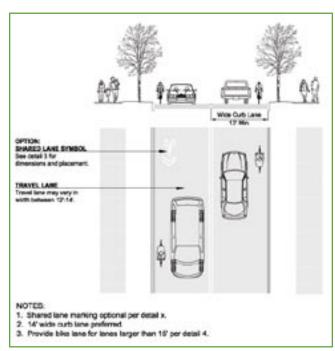
Second priorities include streets designated in Lower Merion Township's Bicycle and Pedestrian Plan as bike routes through Narberth:

- Haverford Avenue (could add bike lane, or stripe or regulate the parallel parking and add a sharrow instead)
- Windsor Avenue (designated as a bike route)
- Meeting House Lane
- North and South Narberth Avenue

Other possibilities include:

Essex Avenue





Conceptual drawings of how "sharrows" are integrated into the design of streets in other communities.

GREEN-UP NARBERTH

Goal: Manage open space, both public and private, to sustain Narberth's environmental quality — in particular, to improve the health of the tree canopy and riparian corridors, and to mitigate the impact of urban development on storm water flows.

Taken together, Narberth's open spaces have a profound impact on the urban environment, particularly microclimate, storm water management, and water quality in riparian corridors. Open space projects and programs should improve the health of these environmental systems, and the tradition of Narb-Earth day should be extended to ongoing community education, through initiatives such as homeowner outreach.

The underlying goal behind the Green Up strategy is conserve, protect, and improve Narberth's environmental resources. Towards that end, there are three categories of "green-up" projects:

- improving Narberth's urban tree canopy,
- building "green infrastructure" that assists with the creation of passive open space, visual beautification and storm water management, and
- providing environmental educational services to Narberth's residents.

Improve Narberth's Urban Tree Canopy

Though Narberth's chief environmental concern is the effective and responsible management of storm water, the first priority should be strategies that enhance or improve Narberth's tree canopy cover.

In fact, a broad, healthy tree canopy is the Borough's first step towards effectively managing storm water. It is low cost, can be implemented immediately and is non-invasive. Trees slow the rate at which rain falls to the ground because the water must navigate through a tree's foliage and branches before it reaches the earth. The longer it takes rainwater to reach the ground, the more time that the soil or the storm water management system has to absorb the water. In short, trees expand the capacity of existing infrastructure by giving it more time to handle rainfall.

Of course, trees do not provide such a service selflessly. Over time, trees have evolved specialized leaf structures perfectly shaped for capturing and directing rainwater in such a manner that it behooves the trees. While the full, flat shape of most leaves abruptly stops a raindrop's downward trajectory, the drip-tip directs the water to the base of the tree at a rate that both won't wash away the nutrients, minerals, and organic materials stabilizing and nurturing the tree and won't drown the tree in standing water. By manipulating this process, Narberth can use its tree canopy as a first defense against unsuitable storm water accumulation.

A healthy and mature tree canopy provides other social and environmental benefits, as well. Shade creates pleasant conditions for outdoor activities; deciduous trees help keep houses cool in the summer and open them up to sunlight in the winter, reducing the need for air conditioning and heating. Finally, trees provide color and beauty to the community's streets.

The following strategies can help ensure that Narberth has the healthiest, most extensive urban tree canopy possible.

☐ Conduct a Tree Inventory

A first step toward ensuring the health of Narberth's tree canopy is to conduct a Borough-wide tree inventory. The inventory will provide basic information about the diversity and concentration of various species, and the age range of trees. A tree inventory can provide base information that could help secure further funding, and help the Borough make strategic decisions about what species of trees, and what areas, are most in need of attention.

☐ Update the Borough's Approved Tree List

The Borough's list of approved trees should be updated to emphasize native species (particularly large, long-lived trees) and to eliminate exotic, ornamental species. This list can be used by the Borough in its tree planting program, in its landscape standards for buffer zones, and with homeowners who are seeking Borough assistance with tree plantings.

☐ Develop a Borough-wide Planting Initiative

In developing a Borough-wide planting initiative, Narberth would aggressively promote — through example, financial support and educational programs — the replacement of older trees and planting of new trees on Borough and private property.

For plantings on Borough property, the Borough should:

- Maintain-replace shade trees on public property.
- Add more trees where possible, including apron areas next to streets, borough parking areas, and the Borough's two parks.

For plantings on private property the Borough should:

- Negotiate preferred pricing for trees with local nurseries. In the past, Narberth has negotiated with local nurseries to establish preferred pricing for Borough residents who purchase trees.
- Offer incentives for tree plantings on private property. These incentives could range from recognition (such as "I Greened Narberth" stickers or certificates), to cash rebates for tree purchases, to volunteer assistance with tree planting (especially pit digging).
- Provide guidance on maintaining trees planting, watering, pruning, etc.

Narberth could even begin the process of branding itself though the repetitive planting of particular trees and shrubs, creating a planting-theme to the Borough-wide planting initiative. This vegetative theme would become identified with Narberth (similar to Washington D.C.'s cherry trees, but at a significantly more intimate scale), and could be planted anywhere from Borough-owned curbside bump-outs to private yards (the Borough could match funds with individuals to create similar plant groups on their private property).

☐ Establish a "Remove and Replace" Policy

The Borough could establish, by ordinance, a requirement that any tree removed from private property or felled by a storm be replaced within a reasonable amount of time.

An Open Space Kit of Parts / Strategies for Green Infrastructure

Narberth has numerous spaces that could be treated more carefully as part of its open space and environmental infrastructure — yards, setbacks on commercial and multi-family buildings, parking lots. Though most of these spaces have no public active use, they do have visual value, and if managed correctly, can begin to help the Borough address its storm water management problems.

This section describes a "kit of parts" for landscape and hardscape strategies, including rain gardens, tree trenches, permeable paving and other collection, storage, and infiltration strategies. The Borough can implement these on its own properties, encourage private property owners to use them, and incorporate them into standards and guidelines for development. Civic groups can assist the Borough with community education and technical assistance programs.

☐ Landscape (and Storm water Management) Design Standards for Traffic Calming

Where the streetscape is altered to calm traffic, thereby increasing plan table areas, landscape and storm water management standards would ensure that every possible opportunity was use to increase vegetation and storm water management efficacy.

☐ Subsurface Retention Areas

The storage/infiltration beds underlying many of these above systems allow rainwater to slowly infiltrate into the soil, recharging the water table. The slower the movement of water into the soil, the greater the storage capacity required, and the deeper the underground bed must be.

It should be noted that plans are currently underway to research the feasibility of a storage/infiltration bed beneath Narberth Playground and playing fields. Thus the first step of many towards a more sustainable, efficient, and responsible storm water management system in Narberth is already underway.

☐ Permeable Paving

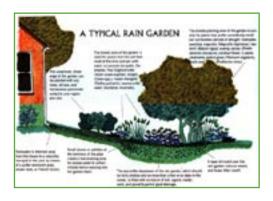
Permeable paving is another possible means of collecting, infiltrating, and storing storm water. Permeable pavements with storage/infiltration beds have been used in a number of locations throughout the country. The pavement most often used is permeable asphalt constructed over a storage/infiltration bed. The use of permeable paving should not be used to change impervious surface requirements.

☐ Curbless Vegetated Buffers



These could be installed at corners with triangle striping prohibiting parking. These could include engineered dry wells to capture and retain storm water, and as such be funded through the federal transportation enhancement program.

☐ Rain Gardens



Rain gardens are shallow (6" – 12"), depressed planting basins of any size or shape located in areas of less than 3 percent slope. Areas with this level of slope (less than 3 percent) don't drain very well, often resulting in stagnant or piddling water. Though in the absence of a rain garden, this would be considered a meddlesome condition, with rain gardens located in those areas, rainfall will be captured, stored, and slowly released, lessening flooding during storm events.

Research on rain gardens over the years has proven their effectiveness. Those gardens consisting solely of a vegetative depression can reduce water accumulation up to .5 inches (out of 3.6 inches) during a two-year storm event, while those rain gardens underlain by infiltration beds and/or subsurface storage can reduce accumulation by 2 inches.

Rain gardens are typically constructed through the installation of a sub-surface infiltration and storage bed in a shallow-graded depression. The depression is then planted with wetland vegetation, including herbaceous plants, shrubs, under story and canopy trees.

Rain gardens not only reduce the volume and rate of surface storm water accumulation, but they also improve the water quality of the water that is captured and infiltrated by reducing pollutants. Additionally, they increase local aesthetics and biodiversity.

☐ Tree Trenches

In physical composition, tree trenches are similar to rain gardens. Tree trenches are continuous planting strips bordering the side of a road or sidewalk. Typically they are 2.5 – 3.5 feet deep and filled with a new soil mix. Positioned just below the existing grade, runoff flows into the trench during storm events, reducing storm water flows and accumulations elsewhere. Additionally, subsurface storage systems can be installed to further supplement storm water retention. Besides being open, in some instances, tree trenches can be covered with gravel or modular paving for light traffic, or back-filled with structural-soils for heavy traffic. Regardless of their surface treatment, tree trenches cumulatively provide the optimal environment for growing trees in an urban environment, in addition to offering storm water retention and infiltration benefits.

Opportunities for Building Green Infrastructure

☐ Enhance Narberth's "Green Streets"

As more streets are upgraded to improve pedestrian and bicycle safety and to slow traffic, they can also be upgraded as "green streets" as well. Characteristic design elements would include Tree Trenches, Permeable Paving, Storage/ Infiltration Beds, and Other Techniques.

☐ Install subsurface infiltration—storage beds beneath low lying turfed areas.

The Borough is seeking funding to prepare engineering studies for how this strategy would work under the Narberth playing fields. Similar infiltration beds have been installed under recently constructed culs-de-sac (at Grayling north of Windsor, for example). Smaller areas for consideration could include the vacant lot adjacent to Ricklin's Hardware.

☐ Rehabilitate parking lots with permeable paving and, where useful, subsurface infiltration-storage beds

Creating more retentive landscapes in upland areas will reduce the quantity of storm water runoff while improving its quality. A project like this also might make for a good opportunity to reach out and involve a local research university; in fact, if the project was devised as a study, it might be eligible for EPA funding.

☐ Green Standards for Buffers and Setbacks

Revisit landscape standards for setbacks on commercial and multi-family buildings to encourage native plantings and better on-site retention of rainwater.

Community Education and Demonstration Projects

Many Borough residents who responded to the Community Open Space Survey and who attended the open space workshop expressed a strong interest in more community education about tree planting and other environmental strategies. Community education could take place at central locations, such as the library, or demonstration sites, or even involve neighborhood visits from arborists or ecologists.

Potential partners include the Narberth Community Library, Shade Tree Commission, N.I.C.E., Garden Club, Lower Merion Conservancy, and Tree-Vitalize / Pennsylvania Horticultural Society. This could be a collaborative project with Lower Merion Township, which has included a similar recommendation in its open space master plan.

An Additional Word about Storm water

Numerous residents have raised concerns about storm water management issues, particularly in the lower-lying areas along Indian Creek and in the blocks that drain to the creek.

However, it is beyond the expertise or scope of this plan to recommend a comprehensive storm water management system for the Borough, or to predict the individual or cumulative impact of any of the specific initiatives recommended in this plan.

Elsewhere, this plan recommends tree planting, landscaping and hardscaping strategies that can, on balance, help reduce the total accumulation of rainwater and to slow the speed with which it runs into creeks or storm drains—with the hope that this will have a positive impact on peak storm water flows.

Additionally, in our planning process, we have identified projects that might merit further investigation by engineers who specialize in storm water management:

Study the possibility and potential impact replacing of the culvert that carries Indian Creek under Narberth playground and playing fields. If the culvert were perfo-

- rated, rather than completely enclosed, it might facilitate drainage of surface water into the Indian Creek channel.
- Study the possibility and potential impact of constructing more storm water retention tanks, particularly in the Haverford Avenue area. Potential locations include the Citizens Bank parking lot, and parking areas used by Essex, Forrest and Narberth Avenue businesses.
- Study the adequacy of storm drain location and size, particularly in low-lying areas south of Price Avenue and West of Narberth Avenue.

We also recommend that the Planning Commission examine the impervious surface ordinance with regard to approved materials that can be used for driveways and offstreet parking areas. One possibility is to create an approved category of "semi-impervious" surfaces that will allow water penetration into the soil, but can support parked or slowly moving vehicles.

Finally, the plan recommends that the Borough investigate the idea of establishing a storm water management authority. Numerous communities around the country have established storm water management authorities. Generally, these entities provide a municipality with an opportunity to do comprehensive storm water planning, and an ability to generate revenues that can be used to upgrade storm water systems.

In Pennsylvania, storm water authorities have been discussed primarily at the regional level; for example, the mission of Chester County's authority is "to provide the basic science, analyses and planning necessary to protect public safety, to preserve the integrity of the County's natural water resources and watershed systems." Radnor Township is exploring the creation of its own authority.

The committee recommends exploring this concept further. The most important question is how an authority would add to Narberth's ability to plan for its future and to finance public improvements. Additional questions include under what terms the Pennsylvania Municipalities Act would allow for the Borough to establish such an entity.

PLANNING AND LANDSCAPE REGULATIONS AND POLICIES

Zoning for Residential Development

In coming years, it is expected that Narberth will experience increasing pressure for house expansions, tear downs, or even the subdivision of lots. The municipal ordinances that most directly affect these issues are the zoning code and the impervious surface ordinance.

We recommend that the Planning Commission examine the zoning code with regard to the adequacy of protecting neighborhood open space character, with special regard to the strict maintenance of front and side setbacks, even on properties with substandard lots. For areas where teardowns and replacement houses might be created on large lots, maximum building coverage requirements might be introduced.

Zoning for Open Space

Narberth currently does not have a zoning classification for open space. Its two publicly owned open spaces, the Narberth playground/playing fields and the Sabine Avenue playground, are currently zoned R-2. We recommend that the Planning Commission consider creating a "public use" or "open space" zone and mapping it appropriately to these spaces. Such a zone could become a tool for protecting other open spaces in the future.

Tree Replacement Ordinance

We recommend that Narberth institute an ordinance that requires any shade tree that is removed due to old age, disease or development to be replaced with a shade tree on the same property. This requirement could be coupled with incentives and assistance as described elsewhere in this plan.

Commercial Landscaping

Narberth currently has landscape standards for buffer or setback areas on commercial development. We recommend that these standards be revised to reflect strategies for plantings that maximize storm water absorption.

Recommended Trees

Narberth currently has a recommended shade tree list that provides assistance to homeowners who wish to plant trees. We recommend that this shade tree list be updated to include native species, eliminate non-native ornamental species, and specify subgroups of trees that would be appropriate for streetfront areas, slopes and riparian corridors.

Fences, Hedges and Retaining Walls

The Borough is currently is considering an ordinance that would prevent fences and hedges from being erected in the Borough right-of-way, which often extends several feet beyond the edge of the sidewalk into residential front yards. The ordinance, however, would permit retaining walls to be built at the edge of the sidewalk. This requirement should be changed so that new retaining walls are not allowed to encroach on the Borough's right of way. This would facilitate the widening of sidewalks in the future.

An Additional Word about Parking

Parking is a concern in several areas in Narberth, as it typically is in towns that were largely built before cars become the common way of getting around.

Parking and open space exist in a delicate balance. In some parts of Narberth, such as the blocks near Iona and Woodbine, parking and passive or recreational open space compete as public priorities. Accessible parking is important to the success of the Narberth Playground, since so many users come from beyond walking distance; our surveys show that except on the busiest of days, there is adequate parking within a short walk of the park. Accessible parking is also important downtown; in this case, the fixed availability of parking may be constraining growth of businesses that would contribute to pedestrian life.

In Narberth, parking improvements will generally require a few basic approaches:

- · Parking improvements depend on solid knowledge of car use and parking patterns, not anecdotes. Resident surveys, user surveys and studies of parking patterns will provide a baseline of information that will make it easier to find and agree to solutions.
- Parking improvements will require a combination of additions to capacity and management practices that make better use of the parking that exists. In terms of creating new spaces, Narberth is densely built, and residents are keenly aware of the cost of acquiring land for and building parking. In terms of management, the use of street spaces might be restricted and the use of private lots might be expanded by agreement.
- Where parking is related to zoning, fresh approaches that look at places on an area-wide basis, rather than a property-by-property basis, might provide new solutions.



AN EVOLVING OPEN SPACE FABRIC

The projects recommended in this Open Space Master Plan — even the priority projects — constitute an aggressive agenda for physical improvements and policy changes in Narberth. The Montgomery County Green Fields Green Towns Program is but one of many sources of support that Narberth will have to turn to in order to accomplish its goals.

Narberth's success will depend on its ability to draw on a broad range of resources for implementation — from civic leadership, to funding streams, to technical assistance, to collaboration with other governmental entities and agencies. Because of its experience with its first open space master plan, which launched a series of projects that are still being worked on today, Narberth understands how to use its planning processes to set a long-term agenda for public improvements — and to stay the course.

This chapter discusses general approaches for building a strong open space implementation process, as well as specific strategies for pursuing each priority project. Tables in the Appendix list all of the projects recommended in this plan (with special lists of priority projects and inter-municipal projects) and potential sources of support.

THINKING STRATEGICALLY

Any one of the priority projects identified in this plan could, in and of itself, occupy much of the Borough's attention, overwhelming a committee or even Borough Council. Most of the projects require further planning and analysis, and most will require multiple funding sources with their own timelines and requirements. The end of this chapter outlines suggested approaches to each of the priority projects.

Collectively, the projects recommended in this plan require strategic, coordinated thinking. It is important ensure the community is continually moving forward, aiming towards short-term accomplishments while at the same time identifying preliminary steps that must be taken now to ensure that the community is positioned to obtain funding and other support when it is available a year or two or more down the road. Council leadership, civic support and professional guidance — together — can help keep Narberth's projects on track and keep the community involved each step of the way.

Civic Leadership

No one entity can implement Narberth's open space projects on its own. The projects will depend on leadership from the Borough's elected officials — its Council members and the Mayor — who rightfully are stewards of Borough finances and policies. At the same time, the projects will depend on

organized assistance from community organizations — such as Council-appointed commissions and community-based civic groups—which can provide additional expertise, liaison to other organizations, and volunteer support.

Borough Council's leadership can begin by assigning each of these priority projects to one of the standing Council committees, which will oversee the necessary research, planning, community outreach and funding applications. Because members of the Open Space Committee were drawn from existing boards and commissions in the Borough, the Council committees can work with members of existing boards and commissions for guidance and support. In particular, many of the recommendations of this plan will require support from the Planning Commission and the Shade Tree Commission.

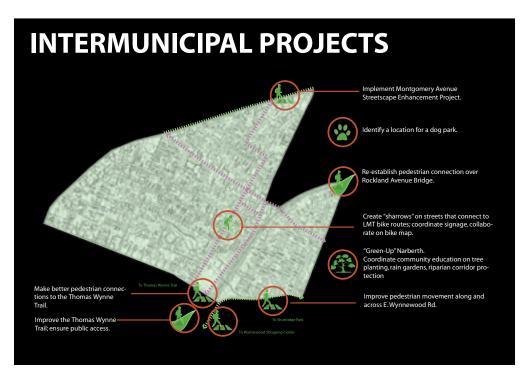
Funding Streams

Although most of the projects recommended in this plan could be funded by the Green Fields Green Towns program, the projects all together would require far more resources than the County can make available. Many of them would also require start-up funding for planning and engineering work, and most funding streams require local "matches." The Open Space Committee has identified several sources of regional, state and federal funding that could be approached for funding the proposals in this plan. Those sources are outlined in an appendix to this plan.

The Narberth Industrial Development Authority should be investigated as a source of seed money or start up funds for the planning of capital projects. In addition, the committee recommends that the Borough investigate the legal and fiscal possibility of establishing a "storm water management authority." Such organizations, which have been established by localities in other states, could provide an additional basis for generating funds for open space projects that are related to storm water management.

Liaison with Lower Merion Township

Many of the projects identified in this plan will require partnership with Lower Merion Township; the projects will benefit both communities and reinforce the ecological, social and environmental connections that already exist. These projects can be advanced through discussions at many levels—community and civic organizations, such as the Narberth Area Garden Club; a consulting planner and Lower Merion Township staff; and elected officials. Generally, these partnerships will be developed on a projectby-project basis. The "Project Implementation Notes" below detail how more specific partnerships with Lower Merion Township could be developed.



Many of the Open Space projects that are important to Narberth will require collaboration with Lower Merion Township.

Technical Assistance

Narberth will continue to require professional assistance in developing the projects and policies outlined in this plan.

One source of assistance can come from regional open space and environmental organizations, such as the Montgomery County Planning Commission and Open Space Board, Lower Merion Conservancy, Pennsylvania Horticultural Society, Tree-Vitalize, and the Darby-Cobbs Creek Watershed Alliance. Brief descriptions of key organizations are located in the appendix.

The Borough may also require professional consulting assistance from time to time. It would be most effective for the Borough to retain a "consulting open space planner," just as it retains a planner for general planning issues, and special solicitors for zoning issues. This planner could be called on, on an as-needed basis, to help prepare applications or RFPs, serve as a liaison to planners in other municipalities or public agencies, provide background research, or facilitate public processes. "Consulting planner" arrangements, which are commonly used by small municipalities, can be a costeffective way of obtaining specialized professional services.

For some projects, such as the design and engineering of "Green Streets" projects, and for master planning the Sabine Avenue playground, consultants should be retained through an RFQ or RFP process. In many cases, funding for "soft costs" of project planning and development must be identified separately from "hard costs" for project construction.

IMPLEMENTATION NOTES FOR PRIORITY PROJECTS

Green Streets

Council Committee Lead: Highway, Health and Welfare

A key priority of Narberth's Open Space Master Plan is to develop Windsor and Narberth Avenues as "Green Streets" that combine traffic calming, pedestrian and bicycle safety, storm water management and beautification features.

Implementation of this concept can begin immediately by appointing a leadership team for the implementation phase, such as the Borough Council's highway committee, and which additional community resources should be involved in the process. Planning, design and local approval should occur over the next eighteen months so the Borough can apply for County open space funding and Federal transportation enhancement funding.

Because the cost and disruption of projects along the entire length of both streets is likely to be prohibitive, the Green Streets team will have to determine which blocks are the best place to begin. The team should take walks along both streets with environmental and street design experts, and visit other communities that have implemented similar strategies. The team will want to establish criteria for choosing blocks to work on, and determine the most appropriate green infrastructure strategies (e.g., rain garden as roadside buffer or traditional grass planting strip, traffic calming and motorist safety).

Since pre-development costs are likely to be high, the availability of funding for project design will significantly impact how to proceed. If Borough or County funds are readily available for pre-construction costs (e.g., survey, title searches, design and cost estimates for improvements), then Borough Council can prepare and distribute an RFP to qualified consultants. Due to the very significant costs of developing designs for all sections of Windsor and Narberth Avenues, team may suggest priority segments of Windsor and Narberth Avenues for early phase implementation.

If outside funds are not available, the Green Streets team should narrow the scope to the most critical sections of Windsor and Narberth Avenues and leverage volunteer services to keep reduce pre-construction costs. The team can gather information from Narberth Borough, Montgomery County Planning Commission, Lower Merion Township, review of title information, PA-One Call, etc., to build database of best available information. With volunteered

resources, the team can prepare "working maps" at 1":30' or 1":50 scale for discussion and planning purposes. Survey and engineering services are unlikely to be donated and will still require budgets in the \$10,000s for small projects.

As planning evolves, it will be important to involve residents of the affected blocks, public safety officials, school transportation officials and street maintenance staffs, in order to ensure that Green Streets will not adversely impact the functioning of streets.

Sabine Avenue Playground

Council Committee Lead: Property

Borough Council is beginning to plan for the future of the former Narberth Elementary School, where the Sabine Avenue Playground is located, because the Lower Merion Township School District's last opportunity to reclaim the site for school use is about to pass.

A playground "master plan" could help give the Borough a better sense of its objectives and options. The first step would be to seek funding for a master plan, which could cost about \$30,000. Such funding could be sought from the Montgomery County Open Space Board as part of the funding it can make available to Narberth, and should be applied for as soon as the plan is approved. Planning should take place in spring and summer, 2006, so the Borough can apply for "Growing Greener" implementation funds in fall, 2006.

Preliminary planning steps would include developing an accurate property and topographical survey of the playground and surrounding areas, conducting a title search to ascertain any existing encumbrances, and clarifying lease terms. Some of this work will probably be done by Borough Council.

The Borough should then hire a qualified firm to develop a detailed park master plan for the Sabine Avenue Park using the information and concepts advocated in the Narberth Open Space Master Plan. Landscape design, recreation planning, public participation and basic engineering skills will be necessary.

The planning process should include evaluating existing conditions (access, parking, existing equipment, relationships of park elements, use patterns); identifying needs and opportunities; and preparing layout, programming and maintenance strategies (including grading and utilities). The park planners should work through appropriate Borough committees (Property) and boards (Recreation) and with the community at-large.

The final product should be three master plan alternatives. East master plan should include preliminary grading information and utility layout to allow a smooth and accurate transition to construction drawings. When the funding becomes available, the alternatives can be re-evaluated and a final master plan can be determined. The final plan should then be able to move quickly to construction drawings and implementation.

East Wynnewood Road Improvements

Council Committee Lead: Highway

In the long run, the project for making improvements to East Wynnewood Road will require the involvement of a number of parties. Lower Merion's commissioners, as well as the township's police, public works and planning department, will have to consider the issue. Not only Narberth's Borough Council, but also its police department and planning commission will have to consider the issue. Ultimately, PennDOT will have to be involved.

Nevertheless, actual research and conceptual planning for improvements could start almost any time — as long as there are parties willing to pursue the idea and as long as funding for the planning can be identified. Narberth Council's interest could be enough to get started, but funding for research and planning could be harder to come by. A joint task force with Narberth and Lower Merion representatives would make an even stronger platform to start from.

Research for the project would begin by assembling as much traffic data and as many past traffic studies as possible, including studies that may have been prepared to analyze the intersection of North Wynnewood and East Wynnewood Roads. It would identify what fresh data should be collected, and sketch out a workplan for an engineering and planning consultant.

The project would then benefit from the services of a professional engineer, who could assess the current conditions and present conceptual strategies for bicycle and pedestrian improvements, as well as order-of-magnitude cost estimates. The conceptual plan could then be circulated to various agencies and to the public, tested against their concerns, and refined so that it can be submitted for approval.

Funding for the planning and research will be difficult to identify, though TCIP funding might be sought for a range of pedestrian planning projects in Narberth. Funds for reconstructing the road could be sought from a number of

federal transportation enhancement programs that will have funding rounds in 2007 for projects that can launch in 2008. Thus planning work should begin as soon as possible in order to enhance Narberth's chances of seeking funding for road improvements next year.

Bicycle Hub

Council Committee Lead: Public Safety

The first step should be to assemble a team that could continue working on this issue as a resource to Borough Council. This group would ideally include two Open Space Committee members (one from Narberth and one from Lower Merion Township), avid bikers from both municipalities and motivated business representatives from Narberth and Lower Merion.

The team should evaluate the physical elements of the bicycle hub as outlined in the plan, namely: bike routes; street markings for bike lanes, sharrows, etc.; signage for route markers and directional information; information kiosk; bike route maps; street markings; and bike racks. For each element, the team will set timelines and determine the resources that would be necessary to make improvements.

For some aspects of the bicycle hub project (route planning, street marking, signage and mapping) professional engineering or graphic design assistance would be necessary. To the extent possible, the committee can be a vehicle for Narberth and Lower Merion to coordinate in seeking funding for these services, developing RFPs and selecting consultants. This is important so that design elements are consistent throughout the region, and so that when applications for funding are made to Montgomery County's Green Fields Green Towns program, they can take advantage of the lower match required for inter-municipal projects. As a practical matter, street improvements (striping) may need to be pursued independently in Narberth, and considered in conjunction with "green streets" projects.

The team should also develop plans to encourage bicycle usage. This could include: maintaining an e-mail database of bicyclists in the region, instituting an annual bike race or run in the region as a charitable benefit, encouraging/posting regular (weekly) bike rides, monitoring bike rack usage and adjusting as appropriate, especially along the R5, soliciting feedback from community members who use the facilities developed, maintaining kiosks and keeping the maps available (online and in print) and updated

Throughout its work, the team should coordinate with local businesses that serve bicyclists and encourage public input in its planning.

Montgomery Avenue Improvements

Council Committee Lead: Public Safety

Planning and design work for Montgomery Avenue is well underway through a grant from the Delaware Valley Regional Planning Authority. Narberth Borough staff and consultants have been working with Lower Merion Township planning staff. This project has support from Lower Merion Commissioners and will be presented to the Narberth Planning Commission for review and comment, and the Borough should seek County Open Space funding as one component of the implementation of the project.

Shade Tree Inventory / Planting

Council Committee Lead: Property

Several of the Open Space Master Plan's recommendations are focused on managing the Borough's shade tree inventory. The first step towards doing this is to undertake an inventory of trees in the Borough — on public space, on private open space such as Narbrook Park, and in yards. This will enable planners to understand what areas of the Borough are most in need of urban tree canopy management, based on the age, health and density of trees, and to establish plans for managing the tree canopy and planting replacements for aged trees on an ongoing basis.

The tree inventory should be managed by the Shade Tree Commission. The inventory should be conducted under the supervision of a professional arborist. To determine the scope of the inventory and draft an RFP, the Shade Tree Commission should research inventories that have been conducted in other communities. Elements to include in the scope in addition to the species of tree could include GPS locations of each tree (public or private property), the caliper of the tree as well as the expected number of years of life remaining for a given tree. The tree inventory represents another opportunity for Narberth Borough to work with Lower Merion Township.

Funding for the tree inventory can come from the County's Green Fields Green Towns program, as well as other sources. Narberth should apply to the County for funding as soon as the County's Open Space Board approves this plan.

The tree inventory should be organized and launched to coincide with Narb-Earth Day in April. This will set the stage for subsequent projects, such as sending a delegation of Borough residents to Tree Tenders training that will be held at Lower Merion Township hall in April and May, and applying to the Tree Vitalize program for trees to plant in the fall.

As the results of the inventory are compiled, the Shade Tree Commission can work with the consulting arborist to review the Borough's recommended tree planting list. The commission can also research tree planting programs and incentives in other municipalities, so that the Borough can address its most pressing tree canopy problems.

Storm water Management Authority

Council Committee Lead: Finance

Numerous communities around the country have established storm water management authorities. Generally, these entities provide a municipality with an opportunity to do comprehensive storm water planning, and an ability to generate revenues that can be used to upgrade storm water systems.

The committee recommends exploring this concept further. The most important question is how an authority would add to Narberth's ability to plan for its future and to finance public improvements. Additional questions include under what terms the Pennsylvania Municipalities Act would allow for the Borough to establish such an entity.

The first steps would be to contact managers of regional storm water authorities in Pennsylvania to discuss how their organizations operate in regard to various state storm water planning requirements and infrastructure investment programs. Radnor Township, which is considering a local authority, should be contacted as well.

Narberth Open Space Master Plan

Priority Recommendations

Category	Project	Implementation	Multi- Municipal
"Re-imagine"	N. Narberth Ave., S. Narberth Ave., Windsor Ave. as "green streets" that	Green Fields, Green Towns	
	balance traffic and parking with walking, biking, "bus stop" socializing, and	Safe Routes to School	
	landscape strategies that decrease stormwater generation.		
"Re-imagine"	Conduct a master plan for Sabine Avenue playground: consider to expanding	Planning: IDA	
	it into the adjacent, under-used parking area; increase its use by residents of	Capital: Green Fields, Green Towns	
	surrounding neighborhoods.		
Connections	Improve pedestrian movement along and across E. Wynnewood Road	LMT; T/E; Green Fields, Green Towns	•
	between Wynnewood Shopping Center and Rockland Avenue.		
Connections	Make downtown Narberth a "Bike Hub" with information kiosks, additional	Green Fields, Green Towns	
	bike racks, bick lockers		
Connections	Pedestrian and bike improvements along Montgomery Avenue	Green Fields, Green Towns	•
Green-up	Tree Census/Inventory to determine age, species mix of existing trees; a first	Green Fields, Green Towns	
	step in developing polices to encourage homeowner tree planting	Tree-Vitalize	

Narberth Open Space Master Plan

All Recommendations

Category	Project	Implementation	Multi- Municipa
'Re-Imagine"	Station Circle design study to consider eliminating elements that clutter space, adding user friendly elements such as information kiosk, art, bike rack, more greenery		
"Re-Imagine"	Narberth playground-athletic field design study consider replacing worn-out landscape, upgrading and increasing user amenities, expanding drop-off and pick-up areas, need for three tennis courts, providing more shade, environmental education features, jogging or biking amenities		
'Re-Imagine"	N.I.C.E. trail improvements, including trailhead markets, street-level entry space/s, crosswalks that lead to entrances, widen/regrade trail, slope stabilization, allow dog walking	Green Fields, Green Towns	
"Re-Imagine"	Finish Hampden Avenue right of way to include pedestrian connection, seating area, permeable hardscape, plantings that assist with stormwater mgmt	Green Fields, Green Towns	
'Re-Imagine"	Haverford Avenue corridor design study to determine if shared parking / reallocated parking can create more usable park space at Narberth athletic		
'Re-Imagine"	Montgomery Avenue corridor by identifying possibilities of freeing up useful areas of open space (small plazas or sitting areas) for customers, employees, residents		
'Re-imagine"	Conduct a master plan for Sabine Avenue playground: consider to expanding it into the adjacent, under-used parking area; increase its use by residents of surrounding neighborhoods.	Planning: IDA Capital: Green Fields, Green Towns	
'Re-imagine"	Identify locations, operational requirements for a farmers market	NOSC; contact market resource organizations (PPS)	
'Re-imagine"	Identify locations, operational requirements for a canine space (dog walk/dog run)	NOSC; LMT; contact/visit similar areas in other communities	•
Acquire	Acquire easement to passive open space at North Wynnewood and East Wynnewood Rd.	Green Fields, Green Towns	
Acquire	Lease/obtain permission to use Citizens Bank lot for off-hours parking for Narberth athletic fields, thereby freeing up parking space near tennis courts		
Acquire	Lease/obtain permission to use New Horizons Senior Center parking lot/ garden as a passive community space		

Narberth Open Space Master Plan

All Recommendations

	Project	Implementation	Multi- Municipal
Connections	Montgomery Avenue "Stage IV" Plan bike and pedestrian improvements	CDBG	•
Connections	Price or Woodbine Avenue as a "green street" that balances traffic and parking	Green Fields, Green Towns	
	with walking, biking, "bus stop" socializing, and landscape strategies that		
	decrease stormwater generation		
Connections	N. Essex Avenue as a "green street" that balances traffic and parking with	Green Fields, Green Towns	
	walking, biking, "bus stop" socializing, and landscape strategies that decrease		
	stormwater generation		
Connections	Bicycle hub: Create information kiosks, amenities for bicyclists, focus on		
	Station Circle.		
Connections	Bicycle racks: Add bike racks throughout borough; locations include	Seek donations	
	Haverford Ave., Montgomery Ave., additional locations at Narberth athletic		
	fields, St. Margaret School, Sabine Avenue playground, churches.		
Connections	Bike lanes/sharrows on Windsor, Haverford, N. Narberth		
Connections	Improve destrian crossings at N. and E. Wynnewood Rd.	Developer condition (Merriam Estate)	•
Connections	Complete trail across Thos Wynne from N. Wynnewood to SEPTA station	Developer condition (Merriam Estate)	•
Connections	Build pedestrian crossings to Thomas Wynne development (connect N.I.C.E.		•
	trail to the public trail to the Wynnewood train station).	Towns	
Connections /	Repair west deck of Narberth Avenue Bridge crossing, improve accessability		
Narberth	for wheelchairs and strollers		
Connections /	SEPTA underpass; conduct engineering study of providing access via ramps;		
Narberth	upgrading drainage and lighting		
Connections /	Adequate pedestrian crossings should be built where new Merriam Estate		•
Lower Merion	public easement walkways intersect with N. Wynnewood Road.		
	Ensure public access across Merriam Estate to Wynnewood Station; connect		•
Lower Merion	to N.I.C.E. trail		
Connections /	North Wynnewood Road bikeway/walkway: build sidewalk/greenway, and on-	Green Fields, Green Towns T/E	
Lower Merion	or off-street bikeway, on Narberth side of road		
Connections /	N. Wynnewood Road underpass		•
Lower Merion			
Connections /	Bike map. Coordinate with LMT on an intermunicipal map, with Station	LMT	•
Lower Merion	Circle/Haverford Avenue identified as bike hub.		
Connections /	Bike signs. Coordinate with LMT on a route marker and destination signage	LMT	•
	system, with Station Circle as bike hub		
	Rockland Avenue Bridge. Demolish existing structure and replace with a	PENNDOT/demolition, Safe Routes	•
	pedestrian-only bridge. Continue engineering study for long-range capital	to School/LMT, replacement	
	funding.	•	
Green-up	Conduct a Tree Inventory	Street Tree Commission; Green	
		Fields, Green Towns;	
Green-up	Update the Borough's Approved Tree List	Street Tree Commission, following	
		consultant recommendation	
Green-up	Eastable a tree replacement ordinance		
Green-up	Test permeable paving, curbless gutters for parking lots: New Horizons,		
	Citizens Bank, Essex and Forrest Ave businesses		
Green-up	Create incentives for planting trees and creating rain gardens in private yards,		
1	and for re-designing parking areas with materials and plantings that decrease		
	stormwater flow.		

Narberth Open Space Master Plan

Intermunicipal Projects

Category	Project	Implementation	Multi- Municipal
"Re-imagine"	Identify locations, operational requirements for a canine space (dog walk/dog	NOSC; LMT; contact/visit similar	
	run)	areas in other communities	
Connections	Montgomery Avenue "Stage IV" Plan bike and pedestrian improvements	CDBG, LMT	•
Connections	Improve destrian crossings at N. and E. Wynnewood Rd.	Developer condition (Merriam Estate)	•
Connections	Complete trail across Thos Wynne from N. Wynnewood to SEPTA station	Developer condition (Merriam Estate)	•
Connections	Build pedestrian crossings to Thomas Wynne development (connect N.I.C.E.	LMT; T/E; Green Fields, Green	•
	trail to the public trail to the Wynnewood train station).	Towns	
Connections /	Adequate pedestrian crossings should be built where new Merriam Estate	LMT	•
Lower Merion	public easement walkways intersect with N. Wynnewood Road.		
Connections /	Ensure public access across Merriam Estate to Wynnewood Station; connect	LMT	•
Lower Merion	to N.I.C.E. trail		
Connections /	N. Wynnewood Road underpass	LMT	•
Lower Merion			
Connections /	Bike map. Coordinate with LMT on an intermunicipal map, with Station	LMT	•
Lower Merion	Circle/Haverford Avenue identified as bike hub.		
Connections /	Bike signs. Coordinate with LMT on a route marker and destination signage	LMT	•
Lower Merion	system, with Station Circle as bike hub		
Connections /	Rockland Avenue Bridge. Demolish existing structure and replace with a	PENNDOT/demolition, Safe Routes	•
Lower Merion	pedestrian-only bridge. Continue engineering study for long-range capital	to School/LMT, replacement	
	funding.		
Green-up	Develop public information campaign for tree planting, rain gardens; other	Tree Vitalize, PHS, LM Conservancy,	•
	environmental strategies	LMT	

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- 60 INTERMUNICIPAL PROJECT RECOMMENDATIONS (TABLE)

NARBERTH BOROUGH COUNCIL

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You Can Help Plan the Future of Narberth's Open Space

Montgomery County is making nearly \$750,000 available to Narberth for open space projects. Borough Council has appointed a committee to develop an Open Space Master Plan, which will consider how well open spaces — such as parks, consider how well open spaces — such as parks, streets/sidewalks, and greenscapes — are serving the community and the environment. The plan will consider how to improve these spaces, creat new ones, make stronger connections to existing spaces, and improve Narberth's greenscape.

You can help plan Narberth's open space future! Please fill out this survey. Also, plan to attend our public briefing and workshop July 19, Borough Hall, 7:00 p.m.

For more information, email narberth@comcast.net

1. How often do you use the open spaces in and around Narberth? Check one box.

VERY OFTEN	OFTEN	SOMETIMES	RARELY	NEVER
Narberth Playgr	ound (C	andy Cane Cit	y, ballfield	ds, etc.)
Sabine Avenue	Tot Lot			
Station Circle				
N.I.C.E. trail (I	laverfore	d Ave.)		
Narbrook Park	/ Indian	Creek		
Shortridge Park				
Merion School	grounds			
Merion Tribute	House g	grounds		
Other				

2. Ho	w do you	usual	ly get to these	e open	spaces?
Circle	as many	as app	ly.		
Walk	Drive	Rike	Skateboard	Other	

3. What activities in Narberth's open spaces are

d circle your top preferenc
Jogging
Casual sports
Watching sports
Basketball
Soccer
Meeting friends
Playground

Seeing nature

___ Gardening

4. Narberth's open spaces are important to me

Environmental education

___ I often see people I know there

Other reason:

They are great places to play sports They add beauty to the community ___ They are great places to be outside and relax They are important to the environment

5. Which of these kinds of places would you use, if they were close by in Narberth? Check up to five,

na circie your top prejeren	ce.
A skateboard park	A nature walk/trail
A safe biking route	A community garden
A passive park	A volleyball court
A teen-age rec center	A farmers market
	and the second s

Sitting areas along streets and/or at school bus stops _ Add your own idea

6. What should the priority for Narberth's Open Space Master Plan be? Please rate these possibilities, "I" is highest.

- Create or find more open space for active use (e.g., playgrounds, sports, farmers market, etc.)
- Create or find space for passive use (e.g., sitting places, gardens, nature education, etc.) Make better use of spaces that already exist (Sabine Avenue tot lot, Narberth playground/ballfields / basketball, etc.)
- Add greenery and reduce paved surfaces
- Improve pedestrian comfort, safety on sidewalks ___ Encourage appropriate traffic speeds
- Make better walking and biking connections to open spaces and other places outside Narberth Health and beauty of trees, vegetation and creeks
- Health and beauty of plantings at Borough entrance
- Add your own priority: _

7. How often do you walk in Narberth? Where to?

8. How often do you ride a bike in Narberth? Where?

9. Name a street or intersection in Narberth that you would like to improve for walking. What would help?

Street:

10. Would you be interested in replacing aging trees or planting new ones your property? Yes No

11. Your street/block: (e.g., 100 block of Chestnut

10-19 20-49 50-59 12. Your age:

In June, Narberth's Open Space Committee mailed a survey

to every household in the Borough, as part of the summer

Borough newsletter. Approximately 1,800 were mailed and

The survey is depicted at the right. Responses to the

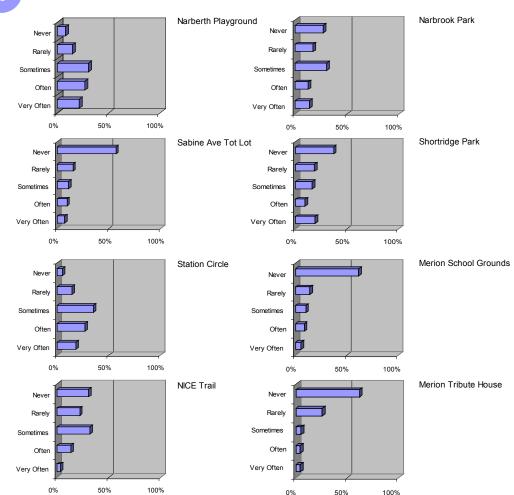
questions were tallied by the Borough's open space

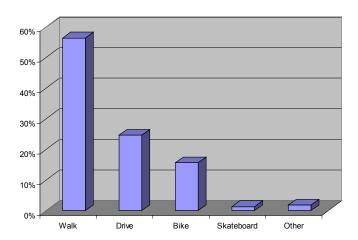
planning consultant, and are presented below and on the

220 were returned.

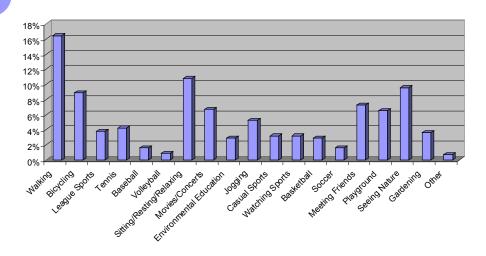
following pages.

How often do you use the open spaces in and around Narberth?

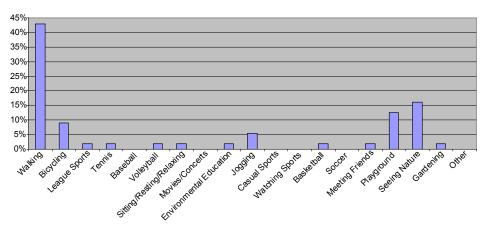




What activities in Narberth's open spaces are important to you now, or would you like to see added?

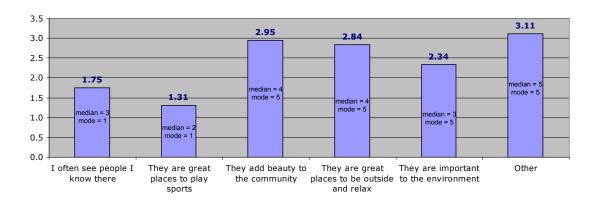


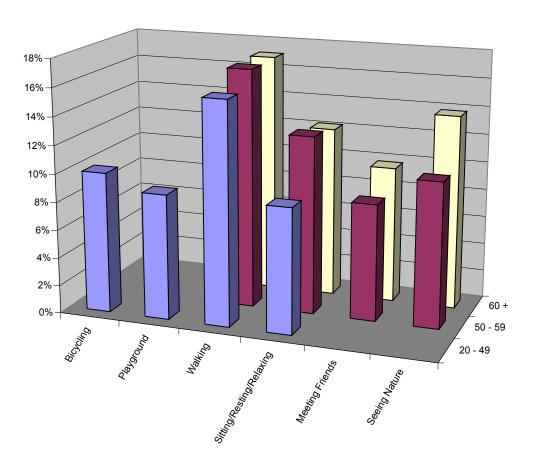
Which activity is most important to you?

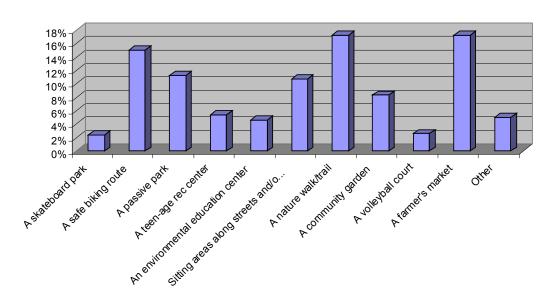


Narberth's open spaces are important to me because:

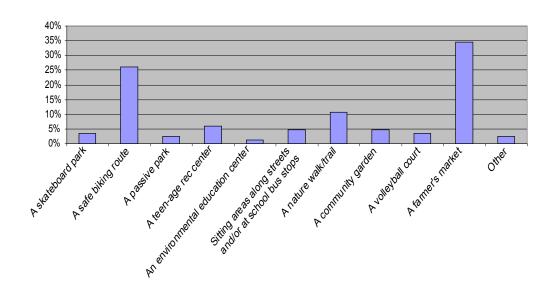
(average rankings of activities' importance; 5 = high, 1 = low)





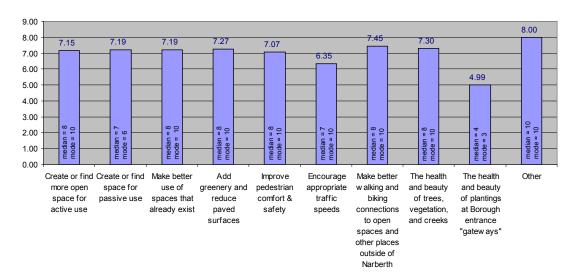


Which of these places would you use most if it were available in Narberth?

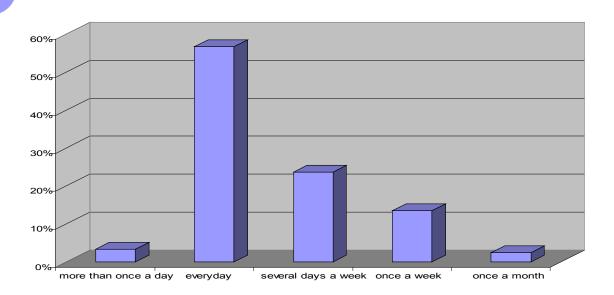


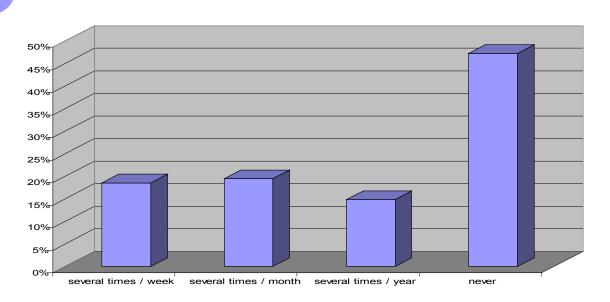
What should the priority for Narberth's Open Space Master Plan be?

(average rankings of activities' importance; 10 = high, 1 = low)

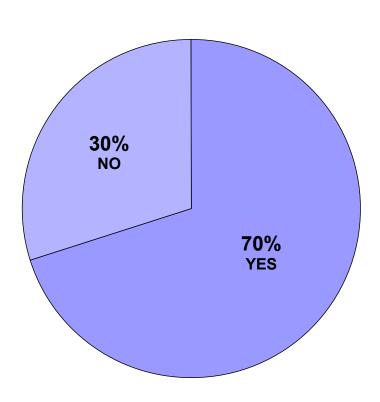


How often do you walk in Narberth?

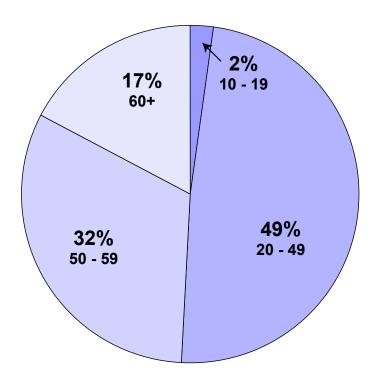








What is your age?



The results are given as the percentage of all respondents who answered this question.

BROWN & KEENER BRESSI NARBERTH OPEN SPACE MASTER PLAN